

FYI

Jennifer Lewis Priestley, MBA, Ph.D.
Professor of Applied Statistics and Data Science
Director, Center for Statistics and Analytical Services
faculty page: <https://analytics.kennesaw.edu/~jpriestl/>
department page: <https://analytics.kennesaw.edu/>
center page: <http://www.kennesaw.edu/csas/>
what would dagny do?

From: "CFPB_ResearchConference" <CFPB_ResearchConference@cfpb.gov>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Wednesday, January 7, 2015 2:08:09 PM
Subject: RE: Paper submission for Conference - Research on Consumer Finance

Hi Jennifer,

We're very excited and thankful to get your submission. We'll be back in touch about the conference agenda, and whether your submission was included, by mid-March.

Thanks!
David Kastelman

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Tuesday, December 30, 2014 11:26 AM
To: CFPB_ResearchConference
Subject: Paper submission for Conference - Research on Consumer Finance

I am writing in reference to the CFPB Conference - Research on Consumer Finance.

Abstract:

Using payday-lender administrative data matched to borrower credit attributes from a national credit bureau, I find that borrowers who engage in protracted refinancing ("rollover") activity have better financial outcomes (measured by changes in credit scores) than consumers whose borrowing is limited to shorter periods. These results are robust to an alternative definition of a "rollover" that ignores out-of-debt periods of 14 days between successive loans. Also, exploiting interstate differences in rollover regulation, I find that, while regulation has a small effect on longer-term usage patterns, consumers whose borrowing is less restricted by regulation fare better than consumers in the most restrictive states, controlling for initial financial condition. These findings directly contradict key assumptions about this market, raise significant policy questions for federal regulators, and suggest the appropriateness of further study of actual consumer outcomes before the imposition of new regulatory rollover restrictions.

Please find my completed research paper attached.

The paper can also be found on the
SSRN: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2534628

In advance, thank you for your consideration.

Jennifer Lewis Priestley, MBA, Ph.D.
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Hilary - I think I am going to submit the paper to this conference:

http://files.consumerfinance.gov/f/201411_cfpb_call-for-papers.pdf

Just wanted to check in with you first.

Have you given to KSU? <http://tinyurl.com/ksuwhyIgive>

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And so it starts...

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From: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
To: "G.E.K." <geokrui@gmail.com>
Sent: Tuesday, December 9, 2014 1:53:07 PM
Subject: Re: your thesis - PAYDAY LOAN ROLLOVERS AND CONSUMER WELFARE

Hi G.E.K.

thanks for your note. The main finding of the paper was that for those at the lowest ends of the credit spectrum (<550), payday borrowing activity is correlated with increases in credit scores. The premise of the CFPB's policy is that the two are negatively related. I showed mathematically that not only is that not the case, but in some segments credit scores improve with payday borrowing activity.

I would be happy to speak in more detail about the study if needed.

Kindest Regards.

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From: "G.E.K." <geokrui@gmail.com>
To: jpriestl@kennesaw.edu
Cc: Pmcbain@aol.com
Sent: Tuesday, December 9, 2014 1:49:59 PM
Subject: your thesis - PAYDAY LOAN ROLLOVERS AND CONSUMER WELFARE

You are kidding, right?

'Borrowers who engage in protracted refinancing ("rollover") activity have better financial outcomes (measured by changes in credit scores) than consumers whose borrowing is limited to shorter periods.'

That your statement is much akin to concluding that a drunk who drinks constantly is in better health than another who drinks twice as much on alternate days to make up for lost time and volume. What is the saying about statistics... 'lies, damn lies, and' (in this case - bad conclusions).

Hi Hilary -

I loaded the paper [yesterday](#) - its status is "Under SSRN Review". I don't know how long that takes.

Would you like for me to load the paper in other locations as well? My website? Our Dept website? Forward to Microbuilt? FactorTrust?

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Thanks Hilary. Will do. :)

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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Friday, December 5, 2014 6:12:18 PM
Subject: RE: Priestley Release Shell

Here it is – both Word and ready-to-upload .pdf format. Please use the abstract verbatim as the SSRN abstract, if you don't mind doing so.

HM

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Friday, December 05, 2014 4:18 PM
To: Hilary B. Miller
Subject: Re: Priestley Release Shell

Hilary - can you forward to me the paper with the embargo stamp taken off? I will then load it into SSRN.

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From: "Amy Cantu" <acantu@cfsaa.com>
To: "Jennifer Lewis Priestley (jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>
Cc: tturne88@kennesaw.edu, "Hilary Miller" <hilary@milller.net>
Sent: Friday, December 5, 2014 2:24:59 PM
Subject: FW: Priestley Release Shell

Dr. Priestley,
Tim and I have discussed announcing the study to media next Tuesday, Dec. 9. Can you let us know your plans for putting this up on SSRN? We would like to include the link to the full study in the announcement.

Thanks,
Amy

Amy Cantu
Communications Director | **CFSA**

515 King St., Suite 300
Alexandria, VA 22314
[703.842.2092](tel:703.842.2092) (direct)
acantu@cfsaa.com

CFSA | www.cfsaa.com

From: Amy Cantu
Sent: Wednesday, December 03, 2014 1:11 PM
To: 'Tim Turner'
Cc: Tammy DeMel; Jennifer Lewis Priestley; 'Hilary Miller'
Subject: RE: Priestley Release Shell

Thanks, Tim. What are your thoughts on releasing this next Tuesday, Dec. 9?

Amy

From: Tim Turner [<mailto:tturne88@kennesaw.edu>]
Sent: Tuesday, December 02, 2014 3:27 PM
To: Amy Cantu
Cc: Tammy DeMel; Jennifer Lewis Priestley
Subject: Re: Priestley Release Shell

Amy:

Thanks for sending this over. We'll take a look at it and get it back to you as soon as possible.

Tim

Tim Turner, Public Relations Professional
Kennesaw State University | [University Relations](#)
1000 Chastain Road MD 9103 | Kennesaw GA 30144
(470) [578-3057](tel:578-3057) | tturne88@kennesaw.edu

From: "Amy Cantu" <acantu@cfsaa.com>
To: "Tim Turner" <tturne88@kennesaw.edu>
Sent: Tuesday, December 2, 2014 2:49:53 PM
Subject: RE: Priestley Release Shell

Hi Tim,

The attached includes some other minor changes. Can you let me know if these are all good by you?

Thank you!

Amy

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Communications Director | **CFSA**

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From: Tim Turner [<mailto:tturne88@kennesaw.edu>]
Sent: Thursday, November 20, 2014 4:13 PM
To: Amy Cantu
Subject: Priestley Release Shell

Hi Amy:

Here's the shell we reworked here for your review. Let me know your thoughts.

Thanks.

Tim

Tim Turner, Public Relations Professional
Kennesaw State University|[University Relations](#)
1000 Chastain Road MD 9103 | Kennesaw GA 30144
(470) [578-3057](#)|tturne88@kennesaw.edu

That timing is fine...I will let you know as soon as I load it.

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Cc: tturne88@kennesaw.edu, "Hilary Miller" <hilary@millar.net>
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Sent: Wednesday, December 03, 2014 1:11 PM
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Subject: Re: Priestley Release Shell

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From: "Amy Cantu" <acantu@cfsaa.com>
To: "Tim Turner" <tturne88@kennesaw.edu>
Sent: Tuesday, December 2, 2014 2:49:53 PM
Subject: RE: Priestley Release Shell

Hi Tim,
The attached includes some other minor changes. Can you let me know if these are all good by you?

Thank you!
Amy

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From: Tim Turner [<mailto:tturne88@kennesaw.edu>]
Sent: Thursday, November 20, 2014 4:13 PM
To: Amy Cantu
Subject: Priestley Release Shell

Hi Amy:

Here's the shell we reworked here for your review. Let me know your thoughts.

Thanks.

Tim

Tim Turner, Public Relations Professional
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I have a few small comments - see attached. Overall, I think it reads well.

Jennifer Lewis Priestley, MBA, Ph.D.
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From: "Amy Cantu" <acantu@cfsaa.com>
To: "Jennifer Lewis Priestley (jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>, tturne88@kennesaw.edu
Cc: "Tammy DeMel" <tdemel@kennesaw.edu>, "Hilary Miller" <hilary@miller.net>
Sent: Wednesday, November 19, 2014 5:21:51 PM
Subject: RE: Press release shell

Dr. Priestley - Attached for your review and consideration is a draft press release announcing your recent study.

Tim - Could we possibly connect again via phone to discuss the mechanics of the release and how we, CFSA and the foundation, can best augment your media outreach efforts?

Thank you,
Amy

—
Amy Cantu
Communications Director | **CFSA**

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From: Tim Turner [<mailto:tturne88@kennesaw.edu>]
Sent: Monday, November 17, 2014 10:58 AM
To: Amy Cantu

Cc: Tammy DeMel; Jennifer Lewis Priestley
Subject: Re: Press release shell

No problem, Amy. Was just checking in on it since initially [Wednesday](#) was our deadline to get the release out the door. Thanks for the update.

Tim

Tim Turner, Public Relations Professional
Kennesaw State University | [University Relations](#)
1000 Chastain Road MD 9103 | Kennesaw GA 30144
(470) [578-3057](#) | tturne88@kennesaw.edu

From: "Amy Cantu" <acantu@cfsaa.com>
To: "Tim Turner" <tturne88@kennesaw.edu>
Cc: "Tammy DeMel" <tdemel@kennesaw.edu>
Sent: Monday, [November 17, 2014](#) 10:13:09 AM
Subject: RE: Press release shell

Hi Tim – Thanks for reaching out. We are refining the release to make sure we portray the findings in the best way. We've asked the research foundation to review it as well. I should have our draft to you and Ms. Priestley in the next day or two. My apologies for the delay.

Best,
Amy

Amy Cantu
Communications Director | **CFSA**

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acantu@cfsaa.com

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From: Tim Turner [<mailto:tturne88@kennesaw.edu>]
Sent: Friday, [November 14, 2014](#) 4:24 PM
To: Amy Cantu
Cc: Tammy DeMel
Subject: Press release shell

Hi Amy:

Just checking in to see where you were with the press release shell. Let me know if you need help with anything.

Thanks.

Tim

Tim Turner, Public Relations Professional
Kennesaw State University|[University Relations](#)
1000 Chastain Road MD 9103 | Kennesaw GA 30144
(470) [578-3057](#)|tturne88@kennesaw.edu

All of that sounds fine. Tim is a great resource for you. He and I spoke [this morning](#), he has read the paper and is very familiar with the context.

As we progress, please do not hesitate to contact me if there is anything I can help with.

Jen :)

Jennifer Lewis Priestley, MBA, Ph.D.
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From: "Amy Cantu" <acantu@cfsaa.com>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>, "Hilary B. Miller" <hilary@miller.net>
Cc: "Tiffany Capuano" <tcapuano@kennesaw.edu>, tturne88@kennesaw.edu
Sent: Monday, [November 10, 2014](#) 11:47:02 AM
Subject: RE: Release of paper

Thank you, Jennifer. I spoke with Tim Turner in university relations [this morning](#) regarding the mechanics of the release. My team is currently drafting the press release for your consideration. I will be back to you with that by end of week.

Best,
Amy

Amy Cantu
Communications Director | **CFSA**

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acantu@cfsaa.com

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From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Thursday, November 06, 2014 1:49 PM
To: Hilary B. Miller
Cc: Amy Cantu; Tiffany Capuano
Subject: Re: Release of paper

Hi Hilary -

All of that sounds fine. Amy, Tiffany Capuano - copied here - will be reaching out to you to begin the conversation regarding the webinar...

I am looking forward to having the paper "see the light of day". :)

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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Cc: "Amy Cantu (acantu@cfsaa.com)" <acantu@cfsaa.com>
Sent: Thursday, November 6, 2014 12:40:30 PM
Subject: RE: Release of paper

Jen –

Here is the final version of the paper in our files.

I have copied my colleague Amy Cantu on this message (her phone number is [\(703\) 842-2092](tel:7038422092)). Amy and I will take a first stab at initial language for a release, which we will then send to you for approval and, assuming you agree, you can show to your media relations team.

We would also like to coordinate a webinar, at our expense, to accompany the release of the paper. So Amy, you and the media relations team will need to coordinate on timing of a number of different steps. The paper should continue to be embargoed until the actual agreed release date.

Thank you so much for your help with this.

Regards,

Hilary

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]

Sent: Thursday, November 06, 2014 9:11 AM

To: Hilary B. Miller

Subject: Re: Release of paper

Hilary -

Just got off the phone with our Media Relations person. We can handle the PR and the release of the paper (universities are pretty good at this...these guys have walked this path before).

Here is what I need from you:

1. The final copy of the paper that was distributed to the CFPB (I know I have it, but in the interest of version control I just want to be certain).

2. The contact person at the Consumer Credit Research Foundation that our PR people can coordinate with regarding the message.

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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Wednesday, November 5, 2014 3:10:44 PM
Subject: RE: Release of paper

Jen –

Sorry I missed your window. Here's what I was calling about:

We received no feedback from the CFPB about your paper. Although they told us they would be calling you with comments and suggestions, apparently they did not. I think it is reasonable to assume that they either have none, or that they want to hold their fire until after the paper is "out" so that they can get a publicity benefit from making their criticisms public. Either way, it is now approaching time to release the paper.

We would like to work with you on the mechanics of release. My question for you is whether your institution will issue a press release regarding the publication of your paper – which we would be happy to draft for their review. Once released, you could put the paper up on SSRN and circulate it to various journals for publication.

Happy to have a call to discuss, but the \$64 question is whether the press release could come from your end rather than ours. We would greatly prefer this approach. The question is timely and important, so it seems that the school might want to crow over it.

Thanks.

Hilary

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]

Sent: Wednesday, November 05, 2014 1:30 PM

To: Hilary B. Miller

Subject: Re: Release of paper

Hi Hilary.

thanks for the note. I am available now...until about 2:45. Then, I will be available again later this evening - after 6. Let me know if that works for you. I will be on my cell - [404-229-3216](tel:404-229-3216)

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From: "Hilary B. Miller" <hilary@miller.net>

To: "Jennifer Lewis Priestley, Ph.D. (jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>

Sent: Wednesday, November 5, 2014 12:07:05 PM

Subject: Release of paper

Jen –

Do you have time to talk [today](#) by phone?

Hilary

Hilary B. Miller • Law offices of Hilary B. Miller • 500 West Putnam Avenue - Suite 400 • Greenwich, Connecticut 06830-6096 • voice: ([203](tel:203-399-1320)) [399-1320](tel:399-1320) • fax: ([914](tel:914-206-3727)) [206-3727](tel:206-3727) • hilary@miller.net • [bio](#) • [v-card](#)

[download](#)

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Jennifer Lewis Priestley, MBA, Ph.D.
Professor of Applied Statistics and Data Science
Director, Center for Statistics and Analytical Services
faculty page: <https://analytics.kennesaw.edu/~jpriestl/>
department page: <https://analytics.kennesaw.edu/>
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what would dagny do?

From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley, Ph.D. (jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>
Sent: Wednesday, November 5, 2014 12:07:05 PM
Subject: Release of paper

Jen –

Do you have time to talk [today](#) by phone?

Hilary

Hilary B. Miller • Law offices of Hilary B. Miller • 500 West Putnam Avenue - Suite 400 • Greenwich, Connecticut 06830-6096 • voice: [\(203\) 399-1320](tel:203-399-1320) • fax: [\(914\) 206-3727](tel:914-206-3727) • hilary@miller.net • [bio](#) • [v-card](#) [download](#)

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Hilary -

Just got off the phone with our Media Relations person. We can handle the PR and the release of the paper (universities are pretty good at this...these guys have walked this path before).

Here is what I need from you:

1. The final copy of the paper that was distributed to the CFPB (I know I have it, but in the interest of version control I just want to be certain).
2. The contact person at the Consumer Credit Research Foundation that our PR people can coordinate with regarding the message.

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To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Wednesday, November 5, 2014 3:10:44 PM
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We would like to work with you on the mechanics of release. My question for you is whether your institution will issue a press release regarding the publication of your paper – which we would be happy to draft for their review. Once released, you could put the paper up on SSRN and circulate it to various journals for publication.

Happy to have a call to discuss, but the \$64 question is whether the press release could come from your end rather than ours. We would greatly prefer this approach. The question is timely and important, so it seems that the school might want to crow over it.

Thanks.

Hilary

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Wednesday, November 05, 2014 1:30 PM
To: Hilary B. Miller
Subject: Re: Release of paper

Hi Hilary.

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I will check with our media relations people [tomorrow](#).

"Hilary B. Miller" <hilary@milller.net> wrote:

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Nope. Radio silence.

"Hilary B. Miller" <hilary@milller.net> wrote:

Jen -

Have you received any feedback, comments or other communications regarding your paper from the CFPB or anyone else?

Hilary

Sure - I am around [today](#)...and [tomorrow](#).

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To: "Jennifer Lewis Priestley, Ph.D. (jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>
Sent: Thursday, July 24, 2014 9:34:14 AM
Subject: FW: The package has been delivered

Jen –

The subject line is a not-very-secret coded message to reflect that your paper was hand-delivered [this morning](#) to David Silberman, who is Associate Director for Research, Markets and Regulation at the CFPB. They have known it was coming, I think, but this is their first look. They will likely duplicate and circulate it internally, and your phone will soon start to ring. I am meeting with Jesse Leary, who is their lead economist on payday, at the end of next week, and this will also be a topic for discussion then.

Let's chat briefly when you have a moment, please.

Hilary

From: joisheffield@yahoo.com [<mailto:joisheffield@yahoo.com>]
Sent: Thursday, July 24, 2014 9:14 AM
To: Dennis Shaul; Charles Halloran; Hilary B. Miller
Subject: The package has been delivered

He was appreciative of the manner in which delivered and stated that. He glanced at the first few pages and said he was looking forward to reading it. I made the points you conveyed to me Hilary and told him I hope that this would encouraged the bureau to dig deeper into this area.

Excellent. Drive safely. Talk to you when you return.

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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Monday, June 30, 2014 9:42:18 AM
Subject: Re: Default Trends

Thanks for this. I'm going to be thinking about how to proceed. Miller family is going on National Lampoon vacation through 7/8. Talk next week. Thank you again!!

From: Jennifer Priestley <jpriestl@kennesaw.edu>
Reply-To: Jennifer Priestley <jpriestl@kennesaw.edu>
Date: Sunday, June 29, 2014 at 10:48 PM
To: Hilary Miller <hilary@miller.net>
Subject: Default Trends

Hi Hilary. Take a look at the attached.

I separated all borrowers out by their starting Vantage Score (<560, 560-580, 581-600, 600+). This is a simple way to control for exogenous factors. Then I looked at how their scores changed over time - comparing defaulters to non defaulters.

Let me know if you want to catch up on **Monday**. I will be out of pocket the rest of the week.

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Hi Hilary -

I am doing some more detailed analysis - controlling for starting point - but in the interim, I thought I would send this over to you - this is the overall change in Vantage score over the four year period for those who defaulted versus not. As you can see, the slopes are almost exactly parallel - indicating that the rate of change is the same. In other words, while those who default start and end at a lower vantage score relative to those who do not default, defaulting on payday loans does not appear to impact financial welfare (defined as vantage score). If defaulting did have an impact, then we would expect to see significantly different slopes/rates of change.

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Got it.

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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Wednesday, June 25, 2014 12:38:29 PM
Subject: RE: Defaults on Payday Loans

We want to control for non-default factors, which in this context means to me comparing outcomes for defaulters with the outcomes similarly initially scored non-defaulters. I leave the methodology to you.

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Wednesday, June 25, 2014 12:36 PM
To: Hilary B. Miller
Subject: Re: Defaults on Payday Loans

Im on it.

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Yes.

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This is a mock up (not real data)...is this aligned with what you are thinking?

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I'm sure they are. But that's not the question! The question is whether defaulters have worse declines in credit scores after default than similarly situated non-defaulters.

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]

Sent: Wednesday, June 25, 2014 12:28 PM

To: Hilary B. Miller

Subject: Re: Defaults on Payday Loans

Sure - The pattern that I think is emerging (but I will verify) is that bad credit risks are bad credit risks - across all products. I will be more responsive this time.

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To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>

Sent: Wednesday, June 25, 2014 12:25:43 PM

Subject: RE: Defaults on Payday Loans

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As a reminder, we are not interested in predicting defaults, or in who defaults. Rather, we are investigating whether the fact of having defaulted makes a difference to a consumer's welfare *after* the default. We are making this because the CFPB has asserted that defaults are harmful to consumers, which really seems unlikely given that the consequences of most defaults are that the borrower retains the loan proceeds without being subject to collection action and without any bureau derogatory report.

So, it would be useful to look at changes in credit scores (or other outcome variables, such as delinquencies on other debts, which are likely to be similar) in the time *following* default. Perhaps we could compare these changes with the changes in scores of non-defaulters with similar initial credit scores.

Would you mind taking another stab at this, please? Sorry if we miscommunicated about it.

H

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]

Sent: Wednesday, June 25, 2014 12:19 PM

To: Hilary B. Miller

Subject: Defaults on Payday Loans

Hi Hilary -

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I actually set a grad student loose on the default and payday loan variables to see if he could find something clever. As you will see, his findings are fairly straight forward...as the number of payday loans taken out increases, the probability of a default decreases. In addition, at the end, you will see that vantage scores are lower for people who default.

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Director, Center for Statistics and Analytical Services

faculty page: <http://www.science.kennesaw.edu/~jpriestl/>
department page: <http://math.kennesaw.edu/>
center page: <http://www.kennesaw.edu/csas/>
what would dagny do?

From: "Hilary B. Miller" <hilary@millier.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Wednesday, June 25, 2014 12:25:43 PM
Subject: RE: Defaults on Payday Loans

This is useful, but for the most part it answers the wrong question. In the last few paragraphs, it begins to zero in on the issue we care about.

As a reminder, we are not interested in predicting defaults, or in who defaults. Rather, we are investigating whether the fact of having defaulted makes a difference to a consumer's welfare *after* the default. We are making this because the CFPB has asserted that defaults are harmful to consumers, which really seems unlikely given that the consequences of most defaults are that the borrower retains the loan proceeds without being subject to collection action and without any bureau derogatory report.

So, it would be useful to look at changes in credit scores (or other outcome variables, such as delinquencies on other debts, which are likely to be similar) in the time *following* default. Perhaps we could compare these changes with the changes in scores of non-defaulters with similar initial credit scores.

Would you mind taking another stab at this, please? Sorry if we miscommunicated about it.

H

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Wednesday, June 25, 2014 12:19 PM
To: Hilary B. Miller
Subject: Defaults on Payday Loans

Hi Hilary -

I owe you a huge apology. I had a panic attack [this morning](#) when I realized that I forgot to send this to you before I

went away last week. I have also been heads down working with a group of trial lawyers - using social media data to try to predict jury verdicts...I am so sorry that this is so late...

I actually set a grad student loose on the default and payday loan variables to see if he could find something clever. As you will see, his findings are fairly straight forward...as the number of payday loans taken out increases, the probability of a default decreases. In addition, at the end, you will see that vantage scores are lower for people who default.

Sorry again for forgetting to get this over to you. Let me know if you would like to discuss. Jen

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I just read the edits - fine with me. :)

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From: "Hilary B. Miller" <hilary@millers.net>
To: "Jennifer Lewis Priestley, Ph.D. (jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>
Sent: Tuesday, June 10, 2014 10:19:44 AM
Subject: Paper with Trans Union comments

Jen –

See the attachment. The few changes are on pp. 11-12 only.

HM

Hi Hilary - my 2:00 meeting was cancelled today - so I have time to speak today between 1:30 and 3:00 if that works better than 9 - 10. Just let me know.

Jennifer Lewis Priestley, MBA, Ph.D.
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Mr. Baines -

Hilary Miller (copied here) has asked me to send you a dataset that he and I have been working with over the last few months. The data is too large to email. So I wanted to check with you regarding your preferred method of receipt. I recently sent the data as SAS Files on two CDs via Federal Express to another client. If that works for you, please forward your mailing address and I will get the data out to you this week.

If you have an alternative method of receipt, just let me know.

Kindest Regards.

Jennifer Lewis Priestley, MBA, Ph.D.
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All of that sounds fine. Just let me know when you want to connect. I will be in and out of meetings on [Monday](#). Pretty open [Tuesday](#) morning.

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----- Original Message -----

From: "Hilary B. Miller" <hilary@milller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Saturday, [June 7, 2014](#) 4:50:42 PM
Subject: RE: Paper

Will do.

Want to talk to you about the "default" issue and see if we can coordinate with Mann.

Also, need to have you send a copy of the dataset to another consultant who will be using it for a completely

unrelated purpose. Will send you details on [Monday](#).

Thanks so much.

Hilary

-----Original Message-----

From: Jennifer Lewis Priestley

[<mailto:jpriestl@kennesaw.edu>]

Sent: Saturday, [June 07, 2014](#) 11:24 AM

To: Hilary B. Miller

Subject: Re: Paper

I will defer to you.

If your travels ever bring you to Atlanta, please do let me know. :)

Jennifer Lewis Priestley, MBA, Ph.D.

Professor of Applied Statistics and Data Science

Director, Center for Statistics and Analytical Services

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page: <http://www.kennesaw.edu/csas/> what would dagny do?

----- Original Message -----

From: "Hilary B. Miller" <hilary@milller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Friday, June 6, 2014 6:03:38 PM
Subject: RE: Paper

Jen --

We have not yet provided the paper to the CFPB and would like to continue its embargoed status until the CFPB has had a chance to review and consider it. We are awaiting the right strategic moment to slip it in there. It is, obviously, your paper, but we do not want it to be distributed. I will be happy to send you a "clean" copy in any event.

Hilary

-----Original Message-----

From: Jennifer Lewis Priestley
[<mailto:jpriestl@kennesaw.edu>]
Sent: Friday, June 06, 2014 9:00 AM
To: Hilary B. Miller
Subject: Paper

Hi Hilary,

I trust all is well. I wanted to check in on the status of the paper and to see if I could get a clean (non embargoed) copy.

Thanks. Jen

Sent from my iPhone

I will defer to you.

If your travels ever bring you to Atlanta, please do let me know. :)

Jennifer Lewis Priestley, MBA, Ph.D.
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what would dagny do?

----- Original Message -----

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To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Friday, June 6, 2014 6:03:38 PM
Subject: RE: Paper

Jen --

We have not yet provided the paper to the CFPB and would like to continue its embargoed status until the CFPB has had a chance to review and consider it. We are awaiting the right strategic moment to slip it in there. It is, obviously, your paper, but we do not want it to be

distributed. I will be happy to send you a "clean" copy in any event.

Hilary

-----Original Message-----

From: Jennifer Lewis Priestley

[<mailto:jpriestl@kennesaw.edu>]

Sent: Friday, June 06, 2014 9:00 AM

To: Hilary B. Miller

Subject: Paper

Hi Hilary,

I trust all is well. I wanted to check in on the status of the paper and to see if I could get a clean (non embargoed) copy.

Thanks. Jen

Sent from my iPhone

Hi Hilary,

I trust all is well. I wanted to check in on the status of the paper and to see if I could get a clean (non embargoed) copy.

Thanks. Jen

Sent from my iPhone

Hi Hilary - sorry for the delayed response...

First - no changes. I am good with this. I have hired a body guard and hired an accountant.

Second - we received the check. thank you.

Third - I checked with Ronald - he has the data. I told him I would be happy to help him navigate the data (it took me a few weeks to really become comfortable with it)...

let me know if you need anything else from me... Jen

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what would dagny do?

From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Monday, May 19, 2014 12:15:28 PM
Subject: RE: Edited paper

Jen –

Here is an edited (not redlined) version of the paper. Minor changes were made at several places. Please let me know what you think of this version and of any further changes you think appropriate. We are continuing to embargo the paper while we consider whether we want to slip it quietly into the CFPB before some more general distribution.

Hilary

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Monday, May 19, 2014 12:09 PM
To: Hilary B. Miller
Subject: Re: Edited paper

Hilary -

I sent the data disks to Ronald Mann - I will be following up with him **today** to ensure that everything was received in good order.

Is the paper ready? Could I trouble you for a copy? Is there something you would like for me to do in terms of distribution?

Jennifer Lewis Priestley, MBA, Ph.D.
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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley, Ph.D. (jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>
Sent: Monday, May 12, 2014 12:43:59 PM
Subject: Edited paper

Jen –

My comments (redlined) are noted in the attachment. Please let me know what you think and provide any necessary adjustments.

Hilary

Data received. :)

Jennifer Lewis Priestley, MBA, Ph.D.
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From: "Ronald Mann" <rmann@law.columbia.edu>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Monday, May 19, 2014 1:11:56 PM
Subject: Re: Following Up

Thanks! CDs received and data transferred off the discs to my computer with no apparent problems! Will let you know if I have any trouble, and thanks so much for your generosity in sharing the results of your labor.

On Mon, May 19, 2014 at 1:09 PM, Jennifer Lewis Priestley <jpriestl@kennesaw.edu> wrote:

Hi Ronald.

I understand that the CDs were delivered on Friday. I want to ensure that the data was accessible and everything was received in good order. Just let me know if I can help in any way. Jen

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what would dagny do?

Spam
Not spam
[Forget previous vote](#)

--

Ronald Mann
Albert E. Cinelli Enterprise Professor of Law
Columbia Law School
435 W. 116th Street
New York, NY 10027
rmann@law.columbia.edu
212-854-1570

Hilary -

I sent the data disks to Ronald Mann - I will be following up with him [today](#) to ensure that everything was received in good order.

Is the paper ready? Could I trouble you for a copy? Is there something you would like for me to do in terms of distribution?

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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley, Ph.D. (jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>
Sent: Monday, [May 12, 2014](#) 12:43:59 PM
Subject: Edited paper

Jen –

My comments (redlined) are noted in the attachment. Please let me know what you think and provide any necessary adjustments.

Hilary

Great. Thanks for saving me from embarrassing myself. :)

Sent from my iPhone

On [May 12, 2014](#), at 11:22 AM, "Hilary B. Miller" <hilary@miller.net> wrote:

Yes. He may need some handholding, which I would appreciate greatly – don't kill yourself. He goes by "Ronald," not "Ron." :)

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]

Sent: Monday, [May 12, 2014](#) 11:22 AM

To: Hilary B. Miller

Subject: Re: Three things

Hilary -

Attached is the invoice. I will reach out to Ron Mann early [tomorrow](#). I assume he just needs the raw/merged dataset?

Jennifer Lewis Priestley, MBA, Ph.D.
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From: "Hilary B. Miller" <hilary@miller.net>

To: "Jennifer Lewis Priestley, Ph.D. (jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>

Sent: Monday, [May 12, 2014](#) 10:22:35 AM

Subject: Three things

Jen –

1. I am working on an edited version of your paper. I should have it done [today](#). I will send it back to you for your further review, but I think this is very nearly the end.
2. I have spoken with Ronald Mann about some of the default-related issues we unearthed in this database. He is an extremely sharp guy and he would be a great collaborator with you on the “second study,” if you would be interested in working with him. In any event, I would like to share the combined dataset with him. Would you please arrange to send him a link or other means by which he can FTP or download it? His email address is rmann@law.columbia.edu.
3. Finally, since you have mercifully not already done so, would you please bill CCRF for the “first study”? We’ll get that paid right away.

Thanks.

Regards,

Hilary

Hilary B. Miller • Law offices of Hilary B. Miller • 500 West Putnam Avenue - Suite 400 • Greenwich, Connecticut 06830-6096 • voice: [\(203\) 399-1320](tel:203-399-1320) • fax: [\(914\) 206-3727](tel:914-206-3727) • hilary@miller.net • [bio](#) • [v-card download](#)

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All of that sounds fine. I will get an invoice out [today](#). Shall I email it? Or is there an address where I should mail it formally?

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From: "Hilary B. Miller" <hilary@milller.net>
To: "Jennifer Lewis Priestley, Ph.D. (jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>
Sent: Monday, [May 12, 2014](#) 10:22:35 AM
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Hi Hilary -

I think I incorporated all of the comments. Take a look and let me know what you think.

Jennifer Lewis Priestley, MBA, Ph.D.
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From: "Hilary B. Miller" <hilary@millier.net>
To: "Jennifer Lewis Priestley, Ph.D. (jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>
Sent: Thursday, May 1, 2014 3:02:23 PM
Subject: FW: New paper

I'm glad we didn't wait too long to get these comments – they are not that helpful. We're not going to start from scratch. Take what you want from them.

HM

From: Gregory Elliehausen [<mailto:gregory.elliehausen@frb.gov>]
Sent: Thursday, May 01, 2014 3:00 PM
To: Hilary B. Miller
Subject: RE: New paper

My review is attached.

One of the tables was not formatted correctly in the last version.

Jennifer Lewis Priestley, MBA, Ph.D.

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Director, Center for Statistics and Analytical Services

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what would dagny do?

Hi Hilary -

Sorry for the delay. I spent some time over the weekend and **today** making some edits to reflect the reviewers comments. I think the paper flows and reads better now (I hate it when reviewers are right). :)

See attached.

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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Tuesday, April 29, 2014 5:08:57 PM
Subject: RE: Dataset question

Yeah, this is what I have. I don't have definitions for the "customer input" fields (i.e., the ones that didn't come from Trans Union). I'm trying to replicate these fields and don't know how they are defined.

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Tuesday, April 29, 2014 5:00 PM
To: Hilary B. Miller
Subject: Re: Dataset question

See if this is what you are looking for.

I will get a revised draft to you this evening.

Jennifer Lewis Priestley, MBA, Ph.D.
Professor of Applied Statistics and Data Science
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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley, Ph.D. (jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>
Sent: Tuesday, April 29, 2014 4:49:34 PM
Subject: Dataset question

Jen –

As part of the materials you received from me or otherwise, do you have a dictionary for the data fields that were supplied by the lenders (they were labeled “Customer Input”)? If so, would you send me what you have or can find, please?

Hilary

Call me and let me see if I can help. [404-229-3216](tel:404-229-3216)

Jennifer Lewis Priestley, MBA, Ph.D.
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department page: <http://math.kennesaw.edu/>
center page: <http://www.kennesaw.edu/csas/>
what would dagny do?

From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley, Ph.D. (jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>
Sent: Tuesday, April 29, 2014 4:49:34 PM
Subject: Dataset question

Jen –

As part of the materials you received from me or otherwise, do you have a dictionary for the data fields that were supplied by the lenders (they were labeled “Customer Input”)? If so, would you send me what you have or can find, please?

Hilary

See if this is what you are looking for.

I will get a revised draft to you this evening.

Jennifer Lewis Priestley, MBA, Ph.D.
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Jen –

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Hilary

Excellent. I will be in my office. [770-423-6107](tel:770-423-6107). Just call when you are ready.

Sent from my iPhone

On [Apr 22, 2014](#), at 5:42 PM, "Hilary B. Miller" <hilary@miller.net> wrote:

I have a 9-11. Let's try to speak at 11.

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]

Sent: Tuesday, [April 22, 2014](#) 5:06 PM

To: Hilary B. Miller

Subject: Re: Priestley - Rollovers

Ok. thanks. Do you have some time to talk [tomorrow](#)? I have availability 10:30 - 12. Then in the late afternoon - between 4 and 5:30

Jennifer Lewis Priestley, MBA, Ph.D.
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From: "Hilary B. Miller" <hilary@miller.net>

To: "Jennifer Lewis Priestley, Ph.D. (jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>

Sent: Tuesday, [April 22, 2014](#) 4:00:25 PM

Subject: FW: Priestley - Rollovers

Here are Victor's comments. They are more comprehensive, more oriented toward the analytical presentation, and more useful than Ronald's -- but also more daunting to implement. On reflection, I agree with him regarding the value of reversing the order of the two principal

findings. As with the previous comments, view these as suggestions rather than commands. Feel free to email or call him directly if you want to discuss it with him.

I am still awaiting another set of comments from Greg Elliehausen. Based on previous work with him, I don't expect anything soon. If you are comfortable doing so, please dive in with what you've got and we can fill in from there.

From: Victor Stango [<mailto:vstango@ucdavis.edu>]
Sent: Tuesday, April 22, 2014 3:00 PM
To: Hilary B. Miller
Subject: Re: Priestley - Rollovers

Here you go. Let me know if you want to discuss.

From: "Hilary B. Miller" <hilary@millers.net>
Date: Mon, 7 Apr 2014 14:53:22 -0400
To: Victor Stango <vstango@ucdavis.edu>
Subject: Priestley - Rollovers

Victor —

This is a review draft and I would greatly appreciate your comments, as we discussed. Thank you!

Regards,

Hilary

Ok. thanks. Do you have some time to talk [tomorrow](#)? I have availability 10:30 - 12. Then in the late afternoon - between 4 and 5:30

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Victor —

This is a review draft and I would greatly appreciate your comments, as we discussed. Thank you!

Regards,

Hilary

I ran the models and the relevant analysis with the 14 day definition - no changes to relative position or to significance. This is logical and makes sense given that over half of all rollovers take place within the first 2 days.

I am appending this analysis to an Appendix. I will edit the text as appropriate and get a revision to you [tomorrow](#) evening (the writing always takes me a lot longer than the analysis).

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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Monday, April 21, 2014 12:40:20 PM
Subject: RE: Rollover Impact

1. With regard to the first two rows of this table, Sandler explains where the data came from (and some limits on obtaining a full sample from certain states and one operator). You can paraphrase this information from her paper.
2. For the paper to have maximum usefulness, you should consider re-running the principal analyses using a 14-day rollover definition and reporting the results as an alternative finding in an appendix (as Fusaro and Cirillo do). Mann is correct that, in light of the CFPB's "Data Point," policymakers are going to be almost single-mindedly focused on a 14-day "lookback" period.

3. The fees in the table are generally correct. FL should be \$15/100 (possibly with a footnote); TX is unlimited.

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Monday, April 21, 2014 10:28 AM
To: Hilary B. Miller
Subject: Re: Rollover Impact

Hi Hilary -

I went through all of Mann's comments...and provided my thoughts in the attached. I make reference to a v9 of the paper - in the interest of "version control" I can let you be the keeper of the working draft...but I was making some edits in the paper to reflect some of Mann's comments. We can use v9 (I will send later [today](#)) or I can just put them in red and you can pick them up as needed.

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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley Ph. D." <jpriestl@kennesaw.edu>
Sent: Thursday, April 10, 2014 10:09:22 AM
Subject: Fwd: Rollover Impact

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I appreciate getting these comments from him. As an academic scholar, I'm sure you're impervious to this kind of feedback -- all in the interest of better science. Thanks again for all your hard work on this.

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Date: April 10, 2014 at 4:40:22 AM PDT
To: "Hilary B. Miller" <hilary@milller.net>
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Will do.

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Sent: Monday, April 21, 2014 1:13:25 PM
Subject: Re: Rollover Impact

Yes. Also any of the other analyses that you think should be alternatively stated on this basis.

From: Jennifer Priestley <jpriestl@kennesaw.edu>
Reply-To: Jennifer Priestley <jpriestl@kennesaw.edu>
Date: Monday, April 21, 2014 at 1:10 PM
To: Hilary Miller <hilary@miller.net>
Subject: Re: Rollover Impact

thats fine. I will run the GEEs with a 14 day defined Rollover - and add this to an Appendix. Right?

Jennifer Lewis Priestley, MBA, Ph.D.
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Read through his comments - all easy enough. I will go through and respond to the notes in a word document this evening. Then we can just copy/paste the responses (with appropriate edits) into the paper.

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Understood. I await the academic review that says "The paper is perfect. I agree with everything - please do not make any changes" :)

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I trust he was generally pleased?

Jennifer Lewis Priestley, MBA, Ph.D.
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----- Original Message -----

From: "Hilary B. Miller" <hilary@milller.net>
To: "Jennifer Lewis Priestley Ph. D." <jpriestl@kennesaw.edu>
Sent: Thursday, April 10, 2014 9:35:01 AM
Subject: Paper

Jen --

I have sent your paper to a few reviewers in confidence -
- Ronald Mann, Victor Stango and Gregory Elliehausen. I
just received Mann's comments and will pass them along to
you in a separate email.

H

Hilary B. Miller

500 West Putnam Avenue - Suite 400

Greenwich, Connecticut 06830-6096

(203) 399-1320 (voice)

(203) 517-6859 (cell)

(914) 206-3727 (fax)

(sent from iPad)

See attached. I made a small edit to f.11 on page 13 and then the larger addition to f.12 on page 14. I am about to go offline for a few hours - but I will be back online this evening.

You can always call me at [404-229-3216](tel:404-229-3216)

Jennifer Lewis Priestley, MBA, Ph.D.
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From: "Hilary B. Miller" <hilary@millier.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Monday, April 7, 2014 1:08:09 PM
Subject: Re: A couple more questions ...

Yes, I would add this to the "robust" footnote.

From: Jennifer Priestley <jpriestl@kennesaw.edu>
Reply-To: Jennifer Priestley <jpriestl@kennesaw.edu>
Date: Monday, April 7, 2014 at 1:05 PM
To: Hilary Miller <hilary@millier.net>
Subject: Re: A couple more questions ...

Hilary -

I am still reading through this - I have a few very minor edits. But I wanted to share something with you that I thought might be relevant. Specifically, on page 14 - f.12...

I discovered that -

Of all borrowers who are defined as having a "rollover" under the 14 Day definition, 55% took their rollover within two days, and 94% took their rollover within 7 days. So, under our

definition, we are still capturing well over half of all rollovers under a commonly accepted, but much looser definition. It also highlights that if people are going to do rollover, they do it right away - which I believe supports Mann's findings.

If you think this is noteworthy, I will append relevant verbiage to f.12

Jennifer Lewis Priestley, MBA, Ph.D.
Professor of Applied Statistics and Data Science
Director, Center for Statistics and Analytical Services
faculty page: <http://www.science.kennesaw.edu/~jpriestl/>
department page: <http://math.kennesaw.edu/>
center page: <http://www.kennesaw.edu/csas/>
what would dagny do?

From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley, Ph.D. (jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>
Sent: Monday, April 7, 2014 10:46:06 AM
Subject: RE: A couple more questions ...

Here is a revised draft (both redlined and clean versions). Please advise any additional comments.

HM

From: Hilary B. Miller
Sent: Saturday, April 05, 2014 10:39 PM
To: Jennifer Lewis Priestley
Subject: Re: A couple more questions ...

This is great. I'll get you another draft tomorrow. Thank you!

From: Jennifer Priestley <jpriestl@kennesaw.edu>
Reply-To: Jennifer Priestley <jpriestl@kennesaw.edu>
Date: Saturday, April 5, 2014 at 8:46 PM

To: Hilary Miller <hilary@miller.net>

Subject: Re: A couple more questions ...

Hi Hilary -

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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Priestley" <jpriestl@kennesaw.edu>
Sent: Saturday, April 5, 2014 10:11:58 AM
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Hilary

Hilary -

I am still reading through this - I have a few very minor edits. But I wanted to share something with you that I thought might be relevant. Specifically, on page 14 - f.12...

I discovered that -

Of all borrowers who are defined as having a "rollover" under the 14 Day definition, 55% took their rollover within two days, and 94% took their rollover within 7 days. So, under our definition, we are still capturing well over half of all rollovers under a commonly accepted, but much looser definition. It also highlights that if people are going to do rollover, they do it right away - which I believe supports Mann's findings.

If you think this is noteworthy, I will append relevant verbiage to f.12

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Hilary

:)

Sent from my iPhone

On [Apr 5, 2014](#), at 10:48 AM, "Hilary B. Miller" <hilary@milller.net> wrote:

No rush. You are always so prompt with turnaround.

From: Jennifer Priestley <jpriestl@kennesaw.edu>

Date: Saturday, [April 5, 2014](#) at 10:44 AM

To: Hilary Miller <hilary@milller.net>

Subject: Re: A couple more questions ...

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Can I call you? What is a good number?

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From: "Hilary B. Miller" <hilary@millier.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Friday, April 4, 2014 4:24:49 PM
Subject: Re: Rollover Paper

That's a difficult concept to grasp and one that is not used in this industry. Let's say I take one loan and roll it over 4 times. Is that .8? How about if I take out five loans and roll four of them over once each (but don't roll over the fifth one)? Is that .8?

From: Jennifer Priestley <jpriestl@kennesaw.edu>
Reply-To: Jennifer Priestley <jpriestl@kennesaw.edu>
Date: Friday, April 4, 2014 at 4:01 PM
To: Hilary Miller <hilary@millier.net>
Subject: Re: Rollover Paper

The computation is actually the average pct of loans rolled over per borrower...by state. So, if an individual took out 10 loans, and 8 were rolled over (under the definition of ≤ 2 days), then their value here is .8. Each individual borrower (keyflag) in the datasets have a pct rolled over value. I needed to get this value per customer (as well as the number of loans rolled over per

customer) because I used this later in the modeling process as a predictor.

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To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Friday, April 4, 2014 3:21:11 PM
Subject: RE: Rollover Paper

I'm reading the text description of Table 3. The "proportion of loans rolled over by state" – which indeed is represented here – is not a common metric. I think I was confused about it the last time we discussed it and I don't remember what it means exactly. Is it the proportion of "new" loans (loans that are not rollovers) that are followed by a loan that is deemed (under your 2-day rule) to be a rollover?

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Friday, April 04, 2014 3:10 PM
To: Hilary B. Miller
Subject: Re: Rollover Paper

Hi Hilary -

I made the update to Table 3 - this now reflects the total number of loans across the two time periods. You may recall that Danielle had 431,430 loans reported in Table 8. I have

420,405 in the Jan2006 file and 432,202 in the Jan2008 file (perhaps the 431,430 was an avg), which are all unique loans used for most of the analysis. So, the total now reported in Table 3 reflects the total number of unique loans across the two files (852,607) which was used for a majority of the analysis.

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To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Friday, April 4, 2014 1:34:21 PM
Subject: RE: Rollover Paper

I don't actually see that table in the "legacy" materials. A more useful table would be Table 8 from the "legacy" materials, but restated on the basis of your definition of "rollover" (i.e., 2 days rather than same day).

I have made some changes to the paper (only major substantive change is material related to the CSO model and CFSA "best practices." Here's the revised draft. Please incorporate a correct table instead of Table 3.

Thanks.

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Friday, April 04, 2014 1:27 PM

To: Hilary B. Miller
Subject: Re: Rollover Paper

Hi Hilary - that was one of the "legacy" tables that I did not create (one of two in the paper - the other is Table 4) - I created the proportion of rollovers column - which I can recreate. For the total number of loans, I have closer to 852,000. Would you like for me to update it?

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Subject: Rollover Paper

Jen –

I'm looking at Table 3. How could 38,000 borrowers have 7,253,000 loans?

Hilary

The computation is actually the average pct of loans rolled over per borrower...by state. So, if an individual took out 10 loans, and 8 were rolled over (under the definition of ≤ 2 days), then their value here is .8. Each individual borrower (keyflag) in the datasets have a pct rolled over value. I needed to get this value per customer (as well as the number of loans rolled over per customer) because I used this later in the modeling process as a predictor.

Jennifer Lewis Priestley, MBA, Ph.D.
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Director, Center for Statistics and Analytical Services
faculty page: <http://www.science.kennesaw.edu/~jpriestl/>
department page: <http://math.kennesaw.edu/>
center page: <http://www.kennesaw.edu/csas/>
what would dagny do?

From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Friday, April 4, 2014 3:21:11 PM
Subject: RE: Rollover Paper

I'm reading the text description of Table 3. The "proportion of loans rolled over by state" – which indeed is represented here – is not a common metric. I think I was confused about it the last time we discussed it and I don't remember what it means exactly. Is it the proportion of "new" loans (loans that are not rollovers) that are followed by a loan that is deemed (under your 2-day rule) to be a rollover?

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Friday, April 04, 2014 3:10 PM
To: Hilary B. Miller
Subject: Re: Rollover Paper

Hi Hilary -

I made the update to Table 3 - this now reflects the total number of loans across the two time periods. You may recall that Danielle had 431,430 loans reported in Table 8. I have 420,405 in the Jan2006 file and 432,202 in the Jan2008 file (perhaps the 431,430 was an avg), which are all unique loans used for most of the analysis. So, the total now reported in Table 3 reflects the total number of unique loans across the two files (852,607) which was used for a majority of the analysis.

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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Friday, April 4, 2014 1:34:21 PM
Subject: RE: Rollover Paper

I don't actually see that table in the "legacy" materials. A more useful table would be Table 8 from the "legacy" materials, but restated on the basis of your definition of "rollover" (i.e., 2 days rather than same day).

I have made some changes to the paper (only major substantive change is material related to the CSO model and CFSA “best practices.” Here’s the revised draft. Please incorporate a correct table instead of Table 3.

Thanks.

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]

Sent: Friday, April 04, 2014 1:27 PM

To: Hilary B. Miller

Subject: Re: Rollover Paper

Hi Hilary - that was one of the "legacy" tables that I did not create (one of two in the paper - the other is Table 4) - I created the proportion of rollovers column - which I can recreate. For the total number of loans, I have closer to 852,000. Would you like for me to update it?

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From: "Hilary B. Miller" <hilary@miller.net>

To: "Jennifer Lewis Priestley, Ph.D. (jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>

Sent: Friday, April 4, 2014 1:14:38 PM

Subject: Rollover Paper

Jen –

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Hilary

Hi Hilary -

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To: "Jennifer Lewis Priestley, Ph.D. (jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>

Sent: Friday, April 4, 2014 1:14:38 PM

Subject: Rollover Paper

Jen –

I’m looking at Table 3. How could 38,000 borrowers have 7,253,000 loans?

Hilary

Will do.

Jennifer Lewis Priestley, MBA, Ph.D.
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To: "Jennifer Lewis Priestley, Ph.D. (jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>
Sent: Friday, April 4, 2014 1:14:38 PM
Subject: Rollover Paper

Jen –

I'm looking at Table 3. How could 38,000 borrowers have 7,253,000 loans?

Hilary

Hi Hilary -

I addressed the points that you had identified. I think the paper reads well.

I have one last number that I need to verify - but the university server is down - so I can update the number [tomorrow](#) if needed - but the text is all fine.

I will be around in the morning - and then client meeting at 11. Let me know if you want to catch up.

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Hi Hilary - no, none of the principle findings change at all. There were a few references to these states that I took out (but not all).

I am working on a final review now. I will get the final paper back to you [tonight](#).

Jennifer Lewis Priestley, MBA, Ph.D.
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From: "Hilary B. Miller" <hilary@millers.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Thursday, April 3, 2014 2:41:47 PM
Subject: RE: one clarification

Shapiro, R. (2011). The Consumer and Social Welfare Benefits and Costs of Payday Loans: A Review of the Evidence. Hispanic Institute (unpublished manuscript), available at <http://www.sonecon.com/docs/studies/Report-Payday-Loans-Shapiro-Sonecon.pdf>.

Question for you: given the ambiguity of California as a “strict” or “loose” state, and the possible reclassification of Utah as a limited-rollover state, does the principal finding of the paper still hold?

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Thursday, April 03, 2014 1:38 PM
To: Hilary B. Miller
Subject: one clarification

Hi Hilary -

Almost done with the edits...

There is a reference to a publication by "Shapiro 2011". I cant seem to determine the citation - too many Shapiros in SSRN. Can you provide more detail?

Jennifer Lewis Priestley, MBA, Ph.D.
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Got it. Thanks.

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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Wednesday, April 2, 2014 8:04:37 AM
Subject: RE: Rollover Paper

[One more:](#)

[APA format requires 1" margins in all sides.](#)

From: Hilary B. Miller
Sent: Wednesday, April 02, 2014 8:03 AM
To: 'Jennifer Lewis Priestley'
Subject: RE: Rollover Paper

[Sorry, there's always one more comment:](#)

[In the text where you discuss your choice of a 2-day lookback period for purposes of determining whether a "rollover" has occurred, perhaps you will rethink why this is a "conservative" assumption. It actually captures fewer transactions than the use of a longer period.](#)

From: Hilary B. Miller
Sent: Wednesday, April 02, 2014 8:01 AM
To: Jennifer Lewis Priestley
Subject: RE: Rollover Paper

Use this version to start, please – it contains the “lite” abstract. BTW, authors generally refer to themselves in the first person in economic literature such as this. It’s crazy but that’s the custom.

From: Hilary B. Miller
Sent: Wednesday, April 02, 2014 7:46 AM
To: Jennifer Lewis Priestley
Subject: Re: Rollover Paper

Sorry, two more things:

1. I have decided that the abstract is too long. I am going to shrink it, mostly by shortening the introductory sentences. Let me mess with it, please.
2. In line with the discussion below of California being a fairly liberal (rather than strict) rollover state in economic reality, you may need to adjust the text, where you hold California out as an example of bad outcomes.
3. In Table 1, and possibly elsewhere, you will need to discuss that the applicable regulatory environment in Texas during the study period permitted operators to lend statewide under the so-called “credit services organization” or “CSO” model, which, despite the existence of other regulations that limit rates and fees in Texas, permitted unregulated rates and rollovers.

HM

From: Jennifer Priestley <jpriestl@kennesaw.edu>
Date: Tuesday, April 1, 2014 at 7:49 PM
To: Hilary Miller <hilary@miller.net>
Subject: Re: Rollover Paper

Thanks Hilary. I will get on this tomorrow. :)

Sent from my iPhone

On Apr 1, 2014, at 4:56 PM, "Hilary B. Miller" <hilary@miller.net> wrote:

Jen –

I have completed a preliminary round of editing your paper. I have spent quite a bit of time on it and have been as careful as possible. The principal changes I have made are organizational and editorial, while attempting to the greatest extent possible to leave your original substance intact. I think the paper is now more concise and less verbose, better organized and a bit more linear in how it reaches its conclusions. I have beefed up some portions of the paper with additional sources and explanations, while deleting a fair amount of the dated literature discussion.

The changes are numerous and fairly extensive. This draft is not redlined. Please review it and feel free to make any further additional changes (or reversions) you feel strongly about.

There are a couple of tasks left for you:

1. The references need to be double-checked against the text. Some of the articles (e.g., Bhutta) have been revised and republished in later-year editions. When possible, refer to the latest

edition, which will usually be at SSRN rather than elsewhere. I will do this again myself, too. Please.

2. Table 1 provides a somewhat jumbled version of how rollover limitations work. (This paper is supposed to be about rollover limitations, BTW, not general payday-loan limitations; I have changed several references in the text on this.) Two things here: (a) California has a state law that prohibits rollovers but allows unlimited same-day transactions as long as they aren't interest-only payments. In other words, a borrower can repay his loan and immediately re-borrow, and do so an unlimited number of times in succession. I don't think your description in the text of California as a "strict" rollover state is correct with this in mind. (b) Utah is not an unregulated-rollover state, as your text indicated – see the new fn. 7, which I have added in the attachment. I think Table 1 would be more useful if it were modified to give more emphasis to interstate rollover-regulation variation and to downplay (or omit altogether) minimum and maximum loan terms, which are not "binding" in the economic sense and really do not operate as interstate differences.

3. I have highlighted in yellow a number of suggested areas for minor additional text.

4. Another item – and this is really big – is that you will need to test your results for robustness under a different definition of "rollover" that comports with the new CFPB paper (CFPB 2014) – i.e., 14 rather than 2 days. I leave to you just how much you need to do to persuade yourself that the results don't really change. Once you are satisfied, you can update the footnote to state what procedures you followed and why you are persuaded.

This is a terrific paper. When it is done, you are going to be famous and your phone will ring off the hook. We are actually talking about a "quiet" release to a few peer reviewers and including the CFPB in the review group. We want them to believe that the results are honest, verifiable and, most importantly, correct. Thanks so much for your help. Please try to finish this up quickly so that we can get it in peer review circulation.

Regards,

Hilary

<Priestley Payday v5.docx>

Thanks Hilary. I will get on this [tomorrow](#). :)

Sent from my iPhone

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Ah. a kindred spirit. :)

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what would dagny do?

From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Wednesday, March 26, 2014 10:59:46 AM
Subject: RE: Data Point Response

Heck, that's nothing. We solve multicollinearity problems at the dinner table every night.

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Wednesday, March 26, 2014 10:42 AM
To: Hilary B. Miller
Subject: Re: Data Point Response

Thanks Hilary. I actually think this paper really tees up our (potential) second paper on default rates for payday loan borrowers.

BTW - I am embarrassed to say that I had to look up "prolix". Now it is my word of the day. :)

I am writing notes [today](#) for class about "heteroscedasticity". I don't expect to teach a lawyer any new words but that might be a fun one for you to incorporate into your conversations [today](#).

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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Wednesday, [March 26, 2014](#) 10:02:41 AM
Subject: RE: Data Point Response

Thanks for this. It's more prolix than what I think is appropriate, but I'll skinny it down and insert it in the paper.

Recall that both Mann and Fusaro & Cirillo use a "window" much wider than yours to define a "rollover." In doing so, they are capturing an economic, rather than literal, refinancing. The theory is that, if the consumer needs to re-incur the debt before reaching his or her next payday, the consumer lacked the means to repay the debt in full from recurring cash inflows. This is something of an effort to bend over backwards to accommodate our antagonists but nevertheless captures an issue that is important to policymakers.

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Wednesday, [March 26, 2014](#) 9:25 AM
To: Hilary B. Miller
Subject: Data Point Response

Jennifer Lewis Priestley, MBA, Ph.D.
Professor of Applied Statistics and Data Science
Director, Center for Statistics and Analytical Services
faculty page: <http://www.science.kennesaw.edu/~jpriestl/>
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Hi Hilary - I read the paper...I am writing a response for you...I will send it over [tomorrow](#).

In the end, I thought it was really alot of nothing - certainly compared to the far more rigorous papers that I have been reading. The CFPB paper was really just descriptive statistics...there was no prediction/explanation. There was no reference or response to the main question central to the discourse - "Does payday lending have a negative, neutral or positive impact on borrowers' financial wellbeing?"

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From: "Hilary B. Miller" <hilary@millers.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Tuesday, March 25, 2014 7:23:17 AM
Subject: RE: CFPB Finds Four Out Of Five Payday Loans Are Rolled Over Or Renewed

Sorry — my full message got deleted.

The CFPB is releasing this new paper — very noisily — [today](#). We need to update your paper to refer to and dispense with it. Essentially, it is new lipstick on the same old pig: repeat usage without evidence of actual consumer detriment. In any event, it is sufficiently important that we need to say something about it. Would you please read it and write a couple of paragraphs? I'll find the appropriate place to slot it in.

I'm going to begin editing in earnest in the next day or so. Back now from London and focusing on this stuff.

Thanks.

Regards,

Hilary

This message, together with any attachments, is intended only for the use of the individual or entity to which it is addressed and may contain information that is legally privileged, confidential and exempt from disclosure. If you are not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this message, or any attachment, is strictly prohibited. If you have received this message in error, please notify the original sender immediately by telephone [\(203-399-1320\)](tel:203-399-1320) or by return e-mail and delete the message, along with any attachments, from your computer. IRS Circular 230 disclosure: Any tax advice contained in this communication (including any attachments) was not intended or written to be used, and cannot be used, for the purpose of (i) avoiding tax-related penalties under the Internal Revenue Code or (ii) promoting, marketing or recommending to another party any matters addressed herein. Thank you.

-----Original Message-----

From: Jennifer Lewis Priestley [jpriestl@kennesaw.edu]

Received: Tuesday March 25, 2014, 07:15 AM

To: Hilary B. Miller [hilary@millers.net]

Subject: Re: CFPB Finds Four Out Of Five Payday Loans Are Rolled Over Or Renewed

Would you like to catch up this afternoon?

Sent from my iPhone

On Mar 25, 2014, at 7:13 AM, "Hilary B. Miller" <hilary@millers.net> wrote:

Jen —

-----Original Message-----

From: CFPB_Communications [CFPB_Communications@cfpb.gov]

Received: Tuesday March 25, 2014, 12:08 AM

To: CFPB_Communications [CFPB_Communications@cfpb.gov]

Subject: CFPB Finds Four Out Of Five Payday Loans Are Rolled Over Or Renewed

<image001.jpg>

FOR IMMEDIATE RELEASE:

March 25, 2014

CONTACT:

Office of Communications

Tel: ([202](tel:2024357170)) 435-7170

**CONSUMER FINANCIAL PROTECTION BUREAU FINDS FOUR OUT OF FIVE PAYDAY LOANS ARE ROLLED
OVER OR RENEWED**

*Research Shows the Majority of Payday Loans Are Made to Borrowers Caught in a Revolving Door of
Debt*

WASHINGTON, D.C. — Today the Consumer Financial Protection Bureau (CFPB) issued a report on payday lending finding that four out of five payday loans are rolled over or renewed within 14 days. The study also shows that the majority of all payday loans are made to borrowers who renew their loans so many times that they end up paying more in fees than the amount of money they originally borrowed.

“We are concerned that too many borrowers slide into the debt traps that payday loans can become,” said CFPB Director Richard Cordray. “As we work to bring needed reforms to the payday market, we want to ensure consumers have access to small-dollar loans that help them get ahead, not push them farther behind.”

The report is at: http://files.consumerfinance.gov/f/201403_cfpb_report_payday-lending.pdf

Payday loans are typically described as a way to bridge a cash flow shortage between paychecks or other income. Also known as “cash advances” or “check loans,” they are usually expensive, small-dollar loans, of generally \$500 or less. They can offer quick and easy accessibility, especially for consumers who may not qualify for other credit.

Today’s report is based on data from a 12-month period with more than 12 million storefront payday loans. It is a continuation of the work in last year’s CFPB report on Payday Loans and Deposit Advance Products, one of the most comprehensive studies ever undertaken on the market. That report raised questions about the loose lending standards, high costs, and risky loan structures that may contribute to the sustained use of these products.

Today’s report provides a deeper analysis of the data, focusing on repeated borrowing by consumers after they take out an initial payday loan. A primary driver of the cost of payday loans is that consumers may roll over the loans or engage in re-borrowing within a short window of time after repaying their first loan. Today’s study looks at not only the initial loans but also loans taken out within 14 days of paying off the old loans; it considers these subsequent loans to be renewals and part of the same “loan sequence.” Today’s study is the most in-depth analysis of this pattern to date.

Key Findings: Many Payday Loans Become Revolving Doors of Debt

By focusing on payday loan renewals, the study found that a large share of consumers end up in cycles of repeated borrowing and incur significant costs over time. Specifically, the study found:

- **Four out of five payday loans are rolled over or renewed:** More than 80 percent of payday loans are rolled over or renewed within two weeks. The study found that when looking at 14-day windows in the states that have cooling-off periods that reduce the level of same-day renewals, the renewal rates are nearly identical to states without these limitations.
- **Three out of five payday loans are made to borrowers whose fee expenses exceed amount borrowed:** Over 60 percent of loans are made to borrowers in the course of loan sequences lasting seven or more loans in a row. Roughly half of all loans are made to borrowers in the course of loan sequences lasting ten or more loans in a row.
- **One out of five new payday loans end up costing the borrower more than the amount borrowed:** For 48 percent of all initial payday loans – those that are not taken out within 14 days of

a prior loan – borrowers are able to repay the loan with no more than one renewal. But for 22 percent of new loans, borrowers end up renewing their loans six times or more. With a typical payday fee of 15 percent, consumers who take out an initial loan and six renewals will have paid more in fees than the original loan amount.

- **Four out of five payday borrowers either default or renew a payday loan over the course of a year:** Only 15 percent of borrowers repay all of their payday debts when due without re-borrowing within 14 days; 20 percent default on a loan at some point; and 64 percent renew at least one loan one or more times. Defaulting on a payday loan may cause the consumer to incur bank fees. Renewing loans repeatedly can put consumers on a slippery slope toward a debt trap where they cannot get ahead of the money they owe.
- **Four out of five payday borrowers who renew end up borrowing the same amount or more:** Specifically, more than 80 percent of borrowers who rolled over loans owed as much or more on the last loan in a loan sequence than the amount they borrowed initially. These consumers are having trouble getting ahead of the debt. The study also found that as the number of rollovers increases, so too does the percentage of borrowers who increase their borrowing.
- **One out of five payday borrowers on monthly benefits trapped in debt:** The study also looked at payday borrowers who are paid on a monthly basis and found one out of five remained in debt the entire year of the CFPB study. Payday borrowers who fall into this category include elderly Americans or disability recipients receiving Supplemental Security Income and Social Security Disability.

Today's report will help educate regulators and the public about how the payday lending market works and about the behavior of borrowers in the market. The CFPB has authority to oversee the payday loan market. It began its supervision of payday lenders in [January 2012](#). In [November 2013](#), the CFPB began accepting complaints from borrowers encountering problems with payday loans.

###

The Consumer Financial Protection Bureau is a 21st century agency that helps consumer finance markets work by making rules more effective, by consistently and fairly enforcing those rules, and by empowering consumers to take more control over their economic lives. For more information, visit consumerfinance.gov.

Would you like to catch up this afternoon?

Sent from my iPhone

On [Mar 25, 2014](#), at 7:13 AM, "Hilary B. Miller" <hilary@millers.net> wrote:

Jen —

-----Original Message-----

From: CFPB_Communications [CFPB_Communications@cfpb.gov]

Received: Tuesday [March 25, 2014](#), 12:08 AM

To: CFPB_Communications [CFPB_Communications@cfpb.gov]

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<image001.jpg>

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[March 25, 2014](#)

CONTACT:

Office of Communications

Tel: ([202](tel:2024357170)) [435-7170](tel:2024357170)

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All of that sounds fine. Look forward to speaking with you when you get back. Jen

Jennifer Lewis Priestley, MBA, Ph.D.
Professor of Applied Statistics and Data Science
Director, Center for Statistics and Analytical Services
faculty page: <http://www.science.kennesaw.edu/~jpriestl/>
department page: <http://math.kennesaw.edu/>
center page: <http://www.kennesaw.edu/csas/>
what would dagny do?

From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Saturday, March 22, 2014 9:38:03 AM
Subject: RE: Checking In

Got it. I am focusing now primarily on editorial efforts. I may have some questions for you. I am traveling and have not been able to block out enough time to do this, so it will await my return on [Tuesday](#). Also, the CFPB is holding a public hearing on payday late next week, and I am looking to see if they have any new data to report. I'll be back to you with suggested edits. Thanks.

-----Original Message-----

From: Jennifer Lewis Priestley [jpriestl@kennesaw.edu]
Received: Saturday March 22, 2014, 01:36 PM
To: Hilary B. Miller [hilary@miller.net]
Subject: Checking In

Hi Hilary -

I trust you are well. I wanted to check in to ensure that you

received the updated draft of the paper on [Monday](#) and to see if you wanted to catch up at any point. Jen :)

Jennifer Lewis Priestley, MBA, Ph.D.
Professor of Applied Statistics and Data Science
Director, Center for Statistics and Analytical Services
faculty page: <http://www.science.kennesaw.edu/~jpriestl/>
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Hi Hilary.

I worked on this over the weekend in Memphis - I think it reads well. I stripped out all of the default analysis - I agree that that analysis could form a paper on its own.

Let me know your thoughts. Jen

Jennifer Lewis Priestley, MBA, Ph.D.
Professor of Applied Statistics and Data Science
Director, Center for Statistics and Analytical Services
faculty page: <http://www.science.kennesaw.edu/~jpriestl/>
department page: <http://math.kennesaw.edu/>
center page: <http://www.kennesaw.edu/csas/>
what would dagny do?

Hi Hilary -

I am making all the edits to the paper - almost done. I would like to have the weekend to work with it - I have to go to Memphis **today**...I plan to do some of the editing on the way. I would expect to have an even more improved revision to you by **Sunday**. Jen :)

Jennifer Lewis Priestley, MBA, Ph.D.
Professor of Applied Statistics and Data Science
Director, Center for Statistics and Analytical Services
faculty page: <http://www.science.kennesaw.edu/~jpriestl/>
department page: <http://math.kennesaw.edu/>
center page: <http://www.kennesaw.edu/csas/>
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Thanks. I will get on this this week. :)

Sent from my iPhone

On Mar 9, 2014, at 11:50 AM, "Hilary B. Miller" <hilary@milller.net> wrote:

Jen –

Thanks so much for this. I agree, it is greatly improved. I have some further comments for you, and I think I can take it from there after you accommodate these issues:

1. Another 30,000' observation, and this one about organization. From a structural standpoint, there is something amiss here, and I realize that it's a monster of my own creation. The paper is supposed to be about payday rollovers. It has that title, and that is its indeed its thrust. But then it suddenly lurches into this "default" discussion, which is a non sequitur, largely unrelated, and a separate issue altogether. And it certainly confuses the main issue. So let's break all that stuff out and make it a SEPARATE PAPER. And it's close and doesn't need a lot of additional work. We can discuss that later. In the meanwhile, we can devote our resources to prompt completion of a rollover-only paper.

2. You will hear a fairly consistent theme in many of the next several comments, which is that they reiterate comments given to you in the 2/19 memo which have not been reflected in this draft. To begin, the "Background" section of the paper, which includes your lit survey, still needs some work. Please go back and look at my previous memo of 2/19 regarding Fusaro and Cirillo (2011) and Mann (2013). These are the canonical works on rollovers, but you don't even bother mentioning them in this section. The later references in the paper should be deleted. You should specifically discuss not only that they studied these matters, but what and how they studied, and what they concluded. Please look at my previous comments. At multiple points in the paper it feels as if you are citing Einstein for his cake recipe instead of for his general theory of relativity.

3. Likewise, you need to pick up my comments about Bhutta (2013) from my 2/19 memo. You have quoted from the paper on p. 3, but this quote completely misses the principal finding of the paper. Take another look at my memo.

4. In general, this section of the paper enumerates the papers, but doesn't explain them well. For example, you say very little about Kaufman. This is an extremely important paper and it is, together with Bhutta, the work on which your paper naturally builds. You therefore need to explain both papers, and then explain the role of your paper plays in adding to science.

5. In general, we do not accept the notion that a "cycle of debt" even exists, and I would appreciate it if you would delete all references to this term, unless you are rebutting its existence. As a threshold matter, and you and I have discussed, the term "cycle of debt" is itself problematic. In common parlance, we do not use this term to refer to a credit card "revolver" who repays his balance over the longest possible time period, nor do we apply it to a mortgage borrower who gets a 10-year interest-only loan (which banks happily provide). It is a term that is nearly exclusively reserved for payday borrowers, so it must import something more than merely

a borrower who remains indebted for “too long.” The “something more” is a feature of payday loans that is asserted by our antagonists to exist, but which does not, in fact, exist: a “debt trap.” The theory of this “trap” seems to be that borrowers devote so much of their free cash flow to paying interest on their payday loans that they cannot repay principal. Thus, according to the “trap” theory, borrowers are compelled to borrow ever-increasing amounts just to cover the interest, with no hope of repaying principal. The problem with this theory of a “trap” is that there is no non-anecdotal evidence to support its existence, and the numbers used by CRL to illustrate it are cooked – false, logically inconsistent, deliberately misleading.

See <http://ssrn.com/abstract=2029146> at page 9 (pages are unnumbered). And the science, as I have previously discussed with you, completely negates the concept of an interest-caused “trap.” See <http://ssrn.com/abstract=1960776>. Because of the lack of science, and the lack of any principled application of the term “cycle” to this kind of usage, we begin simply by denying the existence of a “cycle of debt” and, perhaps more importantly, by denying that extended use is *per se* harmful. As I frequently state publicly, the term “cycle of debt” is a political epithet (usually combined with terms like “trap,” “triple-digit” and “predatory”) which is both loaded and implies some kind of contrary norm. It is not a term of science, and the term is not accepted in peer-reviewed economics literature. I think even you fall into this fallacy in the paper (for example, it is impossible to compound interest on a payday loan, but you seem to imply otherwise in the paper). Perhaps you could rethink this and work some of the Stoesz material into your paper instead. Let’s just call this section “Background on Rollovers.”

6. The lit survey also needs a broader discussion of the CFPB “White Paper,” to which you allude but which you summarize only for its non-data-based findings. I can fix this in your next draft, but it would be easier for you to do it yourself. Again, state what they studied, how they studied it, and what the conclusions were that were supported by their data. You can then discuss separately the political conclusions included in the White Paper that were not supported by the data. I can help you with this if you want.

7. A new point: each of the states you studied in your work has a different regulatory scheme, and rollovers aren’t the only issue that is regulated differently between states. You don’t, for example, control for the differences in interest rates permitted in California (459% APR), Florida (260% APR) and Texas (unlimited). I think you need to explain how controlling for “state” rather than individual regulatory features is a good proxy for “rollovers.” The consumer market experience of interest rates, in practice, is that they are immaterially different.

8. The tables are still not self-explanatory. A non-professional reader should be able to look at any table and tell exactly what is being represented. This can be accomplished through footnotes or more detailed headers. We do not want people’s eyes to glaze over when they look at these tables or to be required to refer back to the text to see what is happening. See comment #12 in the 2/29 memo.

9. Please go back and re-read my comment #14 about the “two day” choice from the 2/29 memo. I don’t think you have addressed this election you made, which you made differently from, for example, Mann. Fusaro and Cirillo show outcomes under alternative definitions of what constitutes a “rollover.” You show one. You need to explain.

10. What happened to the tables from Sandler's paper that I had asked you to include? They now seem to be missing. The "days to clearance" issue is important to be able to refer to prior art.

11. In your discussion of databases (FL and OK), you state that the rollover rates are low, which they must necessarily be. You then drop the discussion. There's a "But ..." (look at UT) and a greatly expanded further discussion warranted here. While the numbers are important, the reader needs to know what's going on here. The presumption is that databases greatly enhance consumer welfare. Surprise! They don't. Why?

I have sent you an APA template that you can apply to the paper.

Thanks for all your hard work. It is really coming along. I am hoping that I can start line-editing your next draft soon and that we can finish the paper this month.

Hilary

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Tuesday, March 04, 2014 10:53 PM
To: Hilary B. Miller
Subject: Next Round...

Hi Hilary -

I have reworked the paper - I think it is improved. Looking forward to your feedback.

Jennifer Lewis Priestley, MBA, Ph.D.
Associate Professor of Statistics
Director, Center for Statistics and Analytical Services
faculty page: <http://www.science.kennesaw.edu/~jpriestl/>
department page: <http://math.kennesaw.edu/>
center page: <http://www.kennesaw.edu/csas/>
what would dagny do?

Hi Hilary -

Thanks for the doc. Is the idea that you were pleased with the content and you just want me to drop it into this template?

I am reworking the discussion section a bit more...but let me know what you thought about the rest of the document.

Jennifer Lewis Priestley, MBA, Ph.D.
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----- Original Message -----

From: "Hilary B. Miller" <hilary@milller.net>
To: "Jennifer Lewis Priestley, Ph.D.
(jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>
Sent: Sunday, March 9, 2014 10:55:04 AM
Subject: Emailing: APA Format New.dotx

Your message is ready to be sent with the following file or link attachments:

APA Format New.dotx

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

Safe Travels. :)

Jennifer Lewis Priestley, MBA, Ph.D.
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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Tuesday, March 4, 2014 10:58:02 PM
Subject: Re: Next Round...

Starting a long plane ride later tonight. Will read. Thanks.

Hilary B. Miller
500 West Putnam Avenue - Suite 400
Greenwich, CT 06830-6096
(203) 399-1320 voice
(203) 517-6859 cell
(914) 206-3727 fax
hilary@miller.net
(sent from iPhone)

On Mar 4, 2014, at 6:52 PM, "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu> wrote:

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<RESULTS NARRATIVE FULL DRAFTV3.docx>

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Got it.

(I really do have an aunt in Savannah TN who was a High School English teacher for 30 years).

Jennifer Lewis Priestley, MBA, Ph.D.
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From: "Hilary B. Miller" <hilary@milller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Tuesday, February 25, 2014 10:33:57 AM
Subject: Re: Update

Don't forget your maiden aunt.

Hilary B. Miller
Law offices of Hilary B. Miller
500 West Putnam Avenue - Suite 400
Greenwich, CT 06830-6096
(203) 399-1320 voice
(203) 517-6859 cell
(914) 206-3727 fax
hilary@milller.net
(sent from iPhone)

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From: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
To: "Hilary B. Miller" <hilary@miller.net>
Sent: Monday, February 17, 2014 7:44:13 PM
Subject: Full Draft

Hi Hilary -

Attached is my full draft of the paper. I anticipate a round or two of edits...but I think it generally makes a contribution to the current research on the topic. I will be around most of [tomorrow](#) if you want to get on the phone at any point. Jen

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what would dagny do?

Could I trouble you to forward to me the papers that you make reference to? Or provide a full citation and I will have my grad students track them down?

I took the GEE model out - in the end, it did not add anything incremental to the discussion...and most importantly, I found an error in the math - that I could have "buried" - but in the end I want the analytics to be bulletproof if challenged (I want to be able to replicate - and have others replicate - all of the results cleanly without issue).

Jennifer Lewis Priestley, MBA, Ph.D.
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Director, Center for Statistics and Analytical Services
faculty page: <http://www.science.kennesaw.edu/~jpriestl/>
department page: <http://math.kennesaw.edu/>
center page: <http://www.kennesaw.edu/csas/>
what would dagny do?

From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Wednesday, February 19, 2014 6:24:35 PM
Subject: RE: Full Draft

Jen –

Again, sorry for the long feedback loop. I have had a couple of days from hell. Here are some comments on the paper:

1. On balance, the paper covers most of the key topics. The numbers seem to be plentiful. There are a few omissions, which I discuss below.

2. As a “30,000 foot” observation, the text seems light. I realize that the consumer-welfare aspects and the literature are relatively new to you, but the narrative seems somewhat superficial, without much discussion of what the underlying processes might be and how your findings dovetail with other literature. In the comments below, I will suggest some additional areas for development.
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Thanks. I will get on this this weekend. :)

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center page: <http://www.kennesaw.edu/csas/>

what would dagny do?

No rush...just checking.

Sent from my iPhone

On Feb 19, 2014, at 4:28 PM, "Hilary B. Miller" <hilary@miller.net> wrote:

Yes. Got it. I am going to write comments for you later today. Sorry for the delay.

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]

Sent: Wednesday, February 19, 2014 4:18 PM

To: Hilary B. Miller

Subject: Checking In

Hi Hilary - just checking to make sure you received the draft and to see if you had made edits? Or if you would like to discuss.

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Hi Hilary -

A quick update. I finished the draft [tonight](#). I would like to read through it again [tomorrow](#) before I send it to you. So, you can look for a final draft from me [tomorrow](#) afternoon. :)

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what would dagny do?

Can you call me?

Sent from my iPhone

On Feb 12, 2014, at 11:42 AM, "Hilary B. Miller" <hilary@miller.net> wrote:

Do I read this correctly — consumers who default have about the same change in their pre-/post- score, regardless of when the default occurs?

Is the comparison the change from 2006-2007 or 2006-2008? I'm not sure I understand what is represented here.

//

-----Original Message-----

From: Jennifer Lewis Priestley [jpriestl@kennesaw.edu]

Received: Wednesday February 12, 2014, 11:37 AM

To: Hilary B. Miller [hilary@miller.net]

Subject: Change in Credit Score by Loan of First Default

Take a look at this...there is an out of trend increase at Loans 4 and 5...but its small.

And, to be clear, this is not isolating rollovers...just the loan at which they defaulted.

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From: "Hilary B. Miller" <hilary@millier.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Wednesday, February 12, 2014 10:31:51 AM
Subject: RE: This (I think) is really good news

Yes, just for 0 through 5 rollovers. Are the differences large? Significant?

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Wednesday, February 12, 2014 10:31 AM
To: Hilary B. Miller
Subject: Re: This (I think) is really good news

The answer is "yes" ...those who default earlier have a larger decrease in credit scores. How would you like to see this reported? The numbers start to get small as you move out - so I don't think BINS is the right way to go...would you like to see avg pct decrease by loan of first default?

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From: "Hilary B. Miller" <hilary@millers.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Wednesday, February 12, 2014 10:19:11 AM
Subject: RE: This (I think) is really good news

Yes, makes sense – people who never default (regardless of how they arrange not to do so) should have higher credit scores.

What is not clear, however, from your previous run is whether people who default “sooner” have worse changes in their credit scores over the ensuing year than people who default “later” – I think you only look at default/no-default. (This is “question 2” below).

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Wednesday, February 12, 2014 10:07 AM
To: Hilary B. Miller
Subject: This (I think) is really good news

Hilary -

Look at the attached. There are (I think) two take aways here...

1. There is a difference in Credit Scores between those who default on Payday loans and those who do not...

This is likely intuitive...but...

2. Those who engage in sustained usage...actually have credit scores that are closer to those who don't default. You will see that, among those who eventually have a payday loan default, those who default on Loan 1 have much lower credit scores than those whose first default is on loan 6. I think the critics would contend that those who even have a loan 6 would be in worse shape. Right?

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Everything is "significant" statistically, because of the number of observations (be wary of people reporting p-values with 50,000 obs). The issue is one of "practical" significance.

Let me create the graphic and send it to you.

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Subject: RE: This (I think) is really good news

Yes, makes sense – people who never default (regardless of how they arrange not to do so) should have higher credit scores.

What is not clear, however, from your previous run is whether people who default “sooner” have worse changes in their credit scores over the ensuing year than people who default “later” – I think you only look at default/no-default. (This is “question 2” below).

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Wednesday, February 12, 2014 10:07 AM
To: Hilary B. Miller
Subject: This (I think) is really good news

Hilary -

Look at the attached. There are (I think) two take aways here...

1. There is a difference in Credit Scores between those who default on Payday loans and those who do not...

This is likely intuitive...but...

2. Those who engage in sustained usage...actually have credit scores that are closer to those who don't default. You will see that, among those who eventually have a payday loan default, those who default on Loan 1 have much lower credit scores than those whose first default is on loan 6. I think the critics would contend that those who even have a loan 6 would be in worse shape. Right?

Jennifer Lewis Priestley, MBA, Ph.D.

Associate Professor of Statistics

Director, Center for Statistics and Analytical Services

faculty page: <http://www.science.kennesaw.edu/~jpriestl/>

department page: <http://math.kennesaw.edu/>

center page: <http://www.kennesaw.edu/csas/>

what would dagny do?

The answer is "yes" ...those who default earlier have a larger decrease in credit scores. How would you like to see this reported? The numbers start to get small as you move out - so I don't think BINS is the right way to go...would you like to see avg pct decrease by loan of first default?

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Sorry - for the delayed response...

For 2006-2007, the results were:

Default - decrease in Credit Score of almost 9 points.

No Default - decrease in Credit Score of 5 points.

For 2008 - 2009, the results were:

Default - decrease in Credit Score of about .8 points.

No Default - increase in Credit Score of about .5 points.

This is consistent with other findings...little differences in 2008-2009 but more substantive differences in 2006-2007.

Still working on the prediction model...

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----- Original Message -----

From: "Hilary B. Miller" <hilary@milller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Tuesday, February 11, 2014 11:06:08 AM
Subject: RE: Talk today?

Related question on #2 -- how do score changes for defaulters compare with score changes of non-defaulters?

-----Original Message-----

From: Jennifer Lewis Priestley
[<mailto:jpriestl@kennesaw.edu>]
Sent: Tuesday, February 11, 2014 10:48 AM
To: Hilary B. Miller
Subject: Re: Talk today?

Hi Hilary -

I ran the first two of your questions...the third is taking some more time.

I have attached the results of the first two.

The results are effectively this...

1. The probability of default starts high (about 18%) and then drops precipitously as the number of rollovers increases.

2. There is effectively no difference on the change in credit scores based upon payday loan default (I ran this overall and by state).

3. - still working on this.

Regarding your question about the number of rollovers being lower than expected...recall that there is a

substantive proportion of the dataset that did not rollover a loan - even under our fairly liberal definition. So, there are ALOT of 0's in the file for number of rollovers. When these are averaged in with those who do rollover, the average may be lower than expected. If the 0's are suppressed, the mean will go up.

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----- Original Message -----

From: "Hilary B. Miller" <hilary@milller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Monday, February 10, 2014 3:50:29 PM
Subject: RE: Talk today?

This looks like a good start. I think it will benefit from copy-editing, but there's a long way to go on that. A few things aren't phrased the way I would do it, but I can give you comments on those issues later.

The rollover count -- in the range of 3 -- seems very low by the standards of other literature (Mann, CFPB White Paper).

You will want to expand your literature survey and include the CFPB White Paper and Kaufman. Since this paper expressly builds on Bhutta et al. (2013) and Kaufman, you'll want to explain how.

Good start. Thank you!

HM

-----Original Message-----

From: Jennifer Lewis Priestley

[<mailto:jpriestl@kennesaw.edu>]

Sent: Sunday, February 09, 2014 8:25 PM

To: Hilary B. Miller

Subject: Re: Talk [today](#)?

Hi Hilary -

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I am going to the incremental analysis [tomorrow](#)...

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----- Original Message -----

From: "Hilary B. Miller" <hilary@milller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Sunday, February 9, 2014 4:43:38 PM
Subject: RE: Talk today?

Confirming our telephone call today:

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From: Jennifer Lewis Priestley

[<mailto:jpriestl@kennesaw.edu>]

Sent: Sunday, February 09, 2014 1:49 PM

To: Hilary B. Miller

Subject: Talk [today?](#)

Sent from my iPhone

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Subject: Talk [today?](#)

Sent from my iPhone

thanks for the summary.

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[<mailto:jpriestl@kennesaw.edu>]

Sent: Sunday, February 09, 2014 1:49 PM

To: Hilary B. Miller

Subject: Talk [today](#)?

Sent from my iPhone

Sure. Let's talk [tomorrow](#) afternoon. Anytime between 1-4 works for me.

Sent from my iPhone

On [Feb 8, 2014](#), at 12:22 PM, "Hilary B. Miller" <hilary@miller.net> wrote:

Jennifer —

I know you are busy writing. I have had a small epiphany on the “default” topic (which is ancillary and not addressed in the synopsis I proposed to you). I think that the answer to a significant policy question lies in slicing the same default baloney in a slightly different way from the way I had previously suggested. Might you have a couple of minutes to discuss this on [Monday](#) (or even over the weekend — I’m working)? Sorry to keep moving the ball on you. This is a small move.

Regards,

Hilary

.

Great - a template would be helpful. I was using the Desai paper as my guide...but I want to use whatever form is preferable.

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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Monday, February 3, 2014 6:26:58 PM
Subject: RE: Update

I think steps less than a bodyguard (such as, for example, a guard dog or barbed wire at your residence) may suffice.

Please do take the weekend. More important to get it right than fast.

In terms of form, Sandler's paper was just about right — standard APA works best. I have a template if you need one.

HM
//.

-----Original Message-----

From: Jennifer Lewis Priestley [jpriestl@kennesaw.edu]
Received: Monday February 3, 2014, 06:24 PM
To: Hilary B. Miller [hilary@miller.net]
Subject: Re: Update

Sure. In that case, I may take the weekend.

Should I hire a bodyguard?

Jennifer Lewis Priestley, MBA, Ph.D.
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From: "Hilary B. Miller" <hilary@milller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Monday, February 3, 2014 5:23:34 PM
Subject: Re: Update

Jennifer, thanks for this progress report. Please take a little extra time and make sure you are going to be happy with both the form and substance of your report. The nature of your findings suggests that you will be subject to intense scrutiny from opponents of the industry. I want to make sure we have anticipated their criticisms.

On Feb 3, 2014, at 2:25 PM, "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu> wrote:

Hi Hilary -

I just wanted to give you an update...I have made good progress
- I expect to have a completed draft to you before the end of the

week (look for something around [Thursday](#)). :)

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From: "Hilary B. Miller" <hilary@millier.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Thursday, January 30, 2014 11:11:17 AM
Subject: RE: Abstract - First Pass - Subject to Further Thought and Your Input

Abstract

The discourse surrounding payday loans has recently focused sharply on consumers' propensity to "roll over" these loans, which are typically two-week, very-high-cost advances. The industry's principal regulator has suggested that this sustained usage may be harmful to consumers. Exploiting interstate differences in rollover regulation, and using administrative data supplied by three lenders for 28,000 borrowers that have been matched to credit scores from a national credit reporting agency, I explore the effectiveness of various regulatory schemes in improving consumer outcomes in the years following initial payday borrowing. I also evaluate the effects of sustained payday-loan usage irrespective of regulatory scheme. I find that, while state regulation has a small effect on longer-term usage patterns, consumers whose borrowing is unrestricted by regulation fare better than consumers in the most restrictive states, after controlling for initial financial status. I also find that longer-term borrowers (three months or more) have better outcomes than consumers whose borrowing is concluded in one month or less. These findings raise significant policy questions and suggest the appropriateness of further study of actual consumer outcomes before the imposition of new regulation at the federal level.

//.

-----Original Message-----

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Received: Thursday [January 30, 2014](#), 11:09 AM

To: Priestley, Jennifer Lewis [jpriestl@kennesaw.edu]

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department page: <http://math.kennesaw.edu/>

center page: <http://www.kennesaw.edu/csas/>

what would dagny do?

From: "Hilary B. Miller" <hilary@miller.net>

To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>

Sent: Thursday, January 30, 2014 11:09:16 AM

Subject: Abstract - First Pass - Subject to Further Thought and Your Input

Abstract

Sure. Just call when you are ready. I have an appt at 1:30 but I am open before that.

Sent from my iPhone

On Jan 28, 2014, at 9:37 AM, "Hilary B. Miller" <hilary@miller.net> wrote:

I don't understand why this is so. I'll give you a call in a while and we can discuss it. I'll be in the car so it may be a bit weird.

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]

Sent: Tuesday, January 28, 2014 9:34 AM

To: Hilary B. Miller

Subject: Re: Revised Results

Sorry for the delay - trust the dentist went well. I have updated tables x.10 and x.11. Basically, when the modeling is done around the probability of NOT rolling over more than 90 days, the effects just change sign (from pos to neg). See attached.

Jennifer Lewis Priestley, MBA, Ph.D.

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From: "Hilary B. Miller" <hilary@miller.net>

To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>

Sent: Tuesday, January 28, 2014 6:19:18 AM

Subject: Re: Revised Results

Did I miss this yesterday?

On Jan 26, 2014, at 4:14 PM, "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu> wrote:

Will do. Look for it [tomorrow](#).

Sent from my iPhone

On Jan 26, 2014, at 3:05 PM, "Hilary B. Miller" <hilary@milller.net> wrote:

Let's take a look and see. Thanks.

-----Original Message-----

From: Jennifer Lewis Priestley [jpriestl@kennesaw.edu]

Received: Sunday January 26, 2014, 02:57 PM

To: Hilary B. Miller [hilary@milller.net]

Subject: Re: Revised Results

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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Saturday, January 25, 2014 5:40:34 PM
Subject: RE: Revised Results

Jennifer —

This looks as if it is as much, if not more, data than we can use. So we will certainly have our choices of which tables to use to tell the story. With the addition of the new tables, it appears that there are meaningful differences between states in patterns of usage. Perhaps paradoxically, those states with the “longest” usage are not the states with the worst outcomes, as antagonists of the industry posit. I suppose this finding is consistent with our previous observations that borrowers who are empowered to use credit as they need it == rather than being artificially constrained by regulation — do best. That’s a fine message.

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Otherwise, looks good. Thanks.

Hilary

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To: Hilary B. Miller [hilary@miller.net]
Subject: Revised Results

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At this stage - my focus was to get the tables (analysis) completed - then focus on the writing...take a look and let me know what analytical edits are still needed.

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No. Sorry. Got tied up [yesterday](#). Let me get the kids to school and then will get it off first thing

Sent from my iPhone

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I am here - just call me when you are ready. [770-423-6107](tel:770-423-6107)

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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Friday, January 17, 2014 12:42:50 PM
Subject: RE: Call

I forget – are you calling me?

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Thursday, January 16, 2014 9:09 AM
To: Hilary B. Miller
Subject: Re: Call

Thats fine. I have class at 11 - but otherwise I should be here at my desk.

Jennifer Lewis Priestley, MBA, Ph.D.
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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Thursday, January 16, 2014 9:07:42 AM
Subject: RE: Call

Certainly — I'm in a meeting and will call you as soon as I finish, probably just before 10:00.

-----Original Message-----

From: Jennifer Lewis Priestley [jpriestl@kennesaw.edu]
Received: Thursday January 16, 2014, 09:05 AM
To: Hilary B. Miller [hilary@miller.net]
Subject: Call

Hilary - Could I trouble you to call me in my office?

[770-423-6107](tel:770-423-6107)

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Thanks Hilary! I lived there for a few years - my favorite pub was the Grenadier on Wilton Crescent. :)

Safe Travels.

Jennifer Lewis Priestley, MBA, Ph.D.
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From: "Hilary B. Miller" <hilary@miller.net>
Cc: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>, "Ronald J. Mann" <rmann@law.columbia.edu>, "Victor O. Stango" <vstango@ucdavis.edu>
Sent: Thursday, January 9, 2014 10:10:45 AM
Subject: Homonoff

http://scholar.princeton.edu/jgoldin/files/Goldin_Homonoff_11_5_2013.pdf

HM.

Hi Hilary - safe Travels...

The basic takeaway is that yes, $><90$ days duration for a loan can be predicted by the same factors that were used to predict default. If you think that this is a relevant finding, I can include this information in the results section. Can we plan to speak on the morning of the 16th? I am available from 9 - 10:45 (I have class at 11).

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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Wednesday, January 8, 2014 9:25:33 AM
Subject: RE: Brief Update

I'm in London on business — will read this on the plane home [tomorrow](#). I looked briefly at the $<>90$ analysis and it's not immediately obvious to me what that represents, so let's discuss, possibly next week when I am back in the office (first full day, 1/15).

-----Original Message-----

From: Jennifer Lewis Priestley [jpriestl@kennesaw.edu]
Received: Wednesday January 8, 2014, 01:30 AM

To: Hilary B. Miller [hilary@miller.net]
Subject: Re: Brief Update

Hilary - sorry for the delay.

Attached is the developing results narrative...I like the themes that are emerging...basically that sustained usage of rollovers (frequency and pct of total payday loans) leads to a stronger financial position. :)

I have also attached the "Over 90 Days" analysis that you had requested (<90 days = 0, 90+ days = 1). Basically, the trends are the same - the model predicts well (see the ROC curve). Let me know if you want me to integrate these results.

I will be at a client most of [tomorrow](#)...but back online on [Thursday](#). Let me know if you want to discuss. :)

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From: "Hilary B. Miller" <hilary@millers.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Tuesday, January 7, 2014 5:48:56 AM
Subject: Re: Brief Update

Excellent. Did you get a chance to do the analyses suggested in my email to you of 1/2?

On Jan 7, 2014, at 4:13 AM, "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu> wrote:

Hilary -

I just wanted to let you know that I am working on the results narrative - I expect to have a substantive results section to you by tomorrow afternoon.

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I did - I will send it as a separate attachment - but the patterns were generally the same.

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faculty page: <http://www.science.kennesaw.edu/~jpriestl/>
department page: <http://math.kennesaw.edu/>
center page: <http://www.kennesaw.edu/csas/>
what would dagny do?

From: "Hilary B. Miller" <hilary@milller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Tuesday, January 7, 2014 5:48:56 AM
Subject: Re: Brief Update

Excellent. Did you get a chance to do the analyses suggested in my email to you of 1/2?

On Jan 7, 2014, at 4:13 AM, "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu> wrote:

Hilary -

I just wanted to let you know that I am working on the results narrative - I expect to have a substantive results section to you by [tomorrow](#) afternoon.

Jennifer Lewis Priestley, MBA, Ph.D.
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Sorry - I hit send prematurely.

I meant to add that they could be rolling it over UNTIL they are ready to pay for it. So, basically the rollover is buying them time until they have the resources to pay it off.

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what would dagny do?

From: "Hilary B. Miller" <hilary@millers.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Thursday, January 2, 2014 2:38:46 PM
Subject: RE: Document for call tomorrow

That's amazing and both logical and counterintuitive!

-----Original Message-----

From: Jennifer Lewis Priestley [jpriestl@kennesaw.edu]
Received: Thursday January 2, 2014, 02:35 PM
To: Hilary B. Miller [hilary@millers.net]
Subject: Re: Document for call tomorrow

An initial check indicates the same pattern of significance. Repossessions, public records and collections

balances are the strongest predictors.

As I was checking to see how rollovers are related to default rates I found an interesting and very strong relationship between number of times a loan is rolled over and prob of default. Basically, as the number of times rolled over increases, the likelihood of default decreases - at a strong rate. See the attached (the value of 10 is actually 10+).

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what would dagny do?

From: "Hilary B. Miller" <hilary@miller.net>

To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>

Sent: Thursday, January 2, 2014 12:16:32 PM

Subject: RE: Document for call [tomorrow](#)

Great. Do you think it is worth doing a similar multivariate analysis to determine how to identify those loan applicants most likely to stay in protracted debt? There are several possible formulations of this question:

1. If we define a negative outcome as rolling over for 90 or more days (using your present 2-day definition), what predicts that?

2. If we use a more inclusive definition of “rollover” that expands the time frame from 2 to 14 days (see, e.g., Mann, Ronald J., Assessing the Optimism of Payday Loan Borrowers (March 12, 2013). Columbia Law and Economics Working Paper No. 443. Available at SSRN:<http://ssrn.com/abstract=2232954>), and look at who then rolls over (as redefined) for > 90 days, what predicts that?

3. Under either scenario 1 or 2 above, in the “worst case” outcome, the borrower rolls over for > 90 days and then is charged off. This is the borrower who never had the means to repay in the first place but arguably just tried, unsuccessfully, to put off the day of reckoning. What predicts this behavior?

I think these additional answers would be the end of the line unless turning over these rocks generates some huge surprises.

H

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Thursday, January 02, 2014 12:02 PM
To: Hilary B. Miller
Subject: Document for call [tomorrow](#)

Hilary - in preparation for our call [tomorrow](#) at 10, I have attached a document for discussion.

Basically, I created the foundations of a "score card" for this segment - looking at the presence of different conditions that would contribute to default on a payday loan.

The first part of the analysis is just a characteristic like aggregate balances in collections. For those with a balance <\$500, the probability of default is 1.06%. For those with a balance >\$2500, the probability of default is 2.6% (the overall average default rate is 1.98%). So, there is some separation there (2.45x more likely to default).

On page 3, you will see that those with <3 public records have a default probability of 1.75% while those with >=3 public

records, the probability of default is 2.8% (1.6x more likely to default).

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This is meaningful because these pieces of information would be known pre-loan...and are simple enough to be self reported.

Starting on page 7, you will see a logistic regression model - it performed fairly well predicting default ($c=.63$). The main take away from this output is the odds ratio estimates on page 8 - which are a multivariate form of the results above, including the 95% confidence intervals - which are statistically significant. :)

Talk to you [tomorrow](#).

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Actually, the more I think about it, the more it might make sense. You cant default on a loan that does not end. Right?

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To: Hilary B. Miller

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Thanks Hilary. All of that sounds fine. I completely agree with getting the analysis correct first. :)

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From: "Hilary B. Miller" <hilary@milller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Monday, December 30, 2013 10:57:34 AM
Subject: RE: Checking In

8:30 is fine.

I agree on getting the numbers right and am not in a great rush to start writing. When we do, it will be fine to paraphrase liberally from Sandler's paper and to use some of her additional work that's not in the paper. I do want to focus on the analytics and make sure they are bulletproof conceptually.

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Monday, December 30, 2013 10:54 AM
To: Hilary B. Miller
Subject: Re: Checking In

Excellent. Lets plan on 8:30? I will call you. My goal is to "finalize" at least conceptually what needs to be done analytically so that I can begin the writing process.

One question that I will have - to what extent can we utilize/leverage Danielle's writing and provide her with second authorship. Or, should I start the writing from scratch?

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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Monday, December 30, 2013 10:41:52 AM
Subject: RE: Checking In

Yes, back from vacation. Best time for me is tomorrow morning – anytime, you pick.

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Monday, December 30, 2013 10:41 AM
To: Hilary B. Miller
Subject: Checking In

Hi Hilary - let me know if you can catch up this week.

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Hi Hilary -

I trust you are winding down for a few days of **Christmas** rest.

I am sending to you the "results narrative" that I had promised for **today**. I have taken what I believe are the most salient and relevant outputs from our iterative discussions and placed them into a "story line".

I will be offline from **today** until the 26th. I could talk on the phone on **Friday** if you would like - just let me know. Mornings are always better for me. :)

Best wishes for a very Merry **Christmas**. Jen

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I want to make sure that you received this for our call. I am really pleased with the results. :)

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From: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
To: "Hilary B. Miller" <hilary@miller.net>
Sent: Monday, December 16, 2013 1:00:02 PM
Subject: Output for Call

Here is the output for our conversation [tomorrow](#). A GEE is a Generalized Estimating Equation (basically an OLS that controls for specified variables and then reports the marginal effects).

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I have updated results. Would you be available for a call [tomorrow](#) or [Wed AM](#)?

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From: "Hilary B. Miller" <hilary@milller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Saturday, [November 16, 2013](#) 10:01:51 AM
Subject: Re: Checking In

Please give me a call as close to 5 on [Monday](#) as you can. I'll be at my desk.

On [Nov 16, 2013](#), at 10:53 AM, "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu> wrote:

OK - I could speak after 5 on M,T,W...just let me know...

And, I dont think I have the Sandler draft - could I trouble you for a copy?

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From: "Hilary B. Miller" <hilary@milller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Saturday, November 16, 2013 9:47:18 AM
Subject: Re: Checking In

We should probably talk about some definitional issues before you get too deeply into even the univariate analysis -- such as why the four snapshots were chosen, what's a "rollover" in economic (rather than literal) terms, etc. it would be worth rereading Sandler's draft before this conversation. I'm around all next week except [Thursday](#).

On [Nov 16, 2013](#), at 10:40 AM, "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu> wrote:

Hi Hilary -

I did not want my "radio silence" to be troubling...I wanted to let you know that I have been working on your project...and have formulated an analysis plan. I have your data loaded into SAS and should have the univariate analysis complete next week and the interim multivariate analysis complete shortly after.

I would like to set up some time with you to speak on the phone the week after [Thanksgiving](#) to give you an update, and ensure that I am on the right track with the analytical plan. Generally, I am only 100% offline when I am in the classroom between 9 and 12 on M/W. Other than that, I can generally make myself

available. It might be useful to have a data person on the phone with us - because I want to validate my computational/programming approach to the calculation of the rollover rates (alternatively, I can just send that to you in advance and you can confirm it prior to the call).

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To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Wednesday, December 11, 2013 1:32:43 PM
Subject: RE: Analysis

Sure.

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Sent: Wednesday, December 11, 2013 12:57 PM
To: Hilary B. Miller
Subject: Analysis

Hilary -

I think I have an analytical solution to controlling for Pre-Borrowing Score - it involves Autoregressive Time Series Analysis. I am not an expert in this - but I have a colleague who is. I would like to have permission to have him help me with some of the math/programming for this technique. His name is Herman (Gene) Ray - he is an assistant professor of Statistics here at the University. I plan to pull a sample of the data and

have him help me build the program to do the analysis... I will then "operationalize" the code to the larger dataset (he wont be accessing the full file). Let me know if this is ok with you.

Jennifer Lewis Priestley, MBA, Ph.D.

Associate Professor of Statistics

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faculty page: <http://www.science.kennesaw.edu/~jpriestl/>

department page: <http://math.kennesaw.edu/>

center page: <http://www.kennesaw.edu/csas/>

what would dagny do?

From: "Hilary B. Miller" <hilary@miller.net>

To: "Jennifer Lewis Priestley, Ph.D. (jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>

Sent: Thursday, December 5, 2013 10:25:46 AM

Subject: FW

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what would dagny do?

Hilary - here is a resend of the analysis from [last night](#) - now using CHANGE07to06PCT (or 09 to 08) as the primary dependent variable. Note that PCT was created by taking the change from 07 to 06 and dividing this by the 06 number (same logic for 09 to 08). I think the most important piece of information for both is the Table of CHANGE07to06PCTBIN by STATE.

The same general patterns hold - but some results are stronger. Take a look. I will send you an invite for [tomorrow](#) for 11. :)

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what would dagny do?

From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Monday, [December 9, 2013](#) 9:04:05 PM
Subject: RE: Latest Results

Barring unforeseen travel issues, I should be back at my desk at 11:00. Do you want to talk then?

Do you see the general pattern I do where the Ss with the worst outcomes are those with the highest starting scores?

-----Original Message-----

From: Jennifer Lewis Priestley [jpriestl@kennesaw.edu]

Received: Monday December 9, 2013, 08:47 PM

To: Hilary B. Miller [hilary@millers.net]

Subject: Re: Latest Results

Ok. Let's catch up Wednesday when you get back. Just let me know a good time.

Sent from my iPhone

> On Dec 9, 2013, at 8:29 PM, "Hilary B. Miller" <hilary@millers.net> wrote:

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> From: Jennifer Lewis Priestley [mailto:jpriestl@kennesaw.edu]

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> To: Hilary B. Miller

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> Subject: RE: Call [today](#) at 10? Does that work?

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> Sent: Friday, December 6, 2013 4:06:46 PM

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> Sent: Friday, December 06, 2013 8:21 AM

> To: Hilary B. Miller

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Yep. I will send you a revised doc [tomorrow](#) PM

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Will do. And, you are correct. 1std is about 50 points...which is also 10% from the baseline. :)

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Sent from my iPhone

Hilary -

Question - I am "bucketing" the change in Vantage score to group those with an "adverse" outcome as we discussed. Would you rather see the bucketing logic based on percentiles (e.g., lowest 10%, lowest 20%, etc) or standard deviations (.5 std below the mean, 1 std below the mean, etc)?

Jennifer Lewis Priestley, MBA, Ph.D.
Associate Professor of Statistics
Director, Center for Statistics and Analytical Services

faculty page: <http://www.science.kennesaw.edu/~jpriestl/>
department page: <http://math.kennesaw.edu/>
center page: <http://www.kennesaw.edu/csas/>
what would dagny do?

----- Original Message -----

From: "Hilary B. Miller" <hilary@milller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Friday, December 6, 2013 4:06:46 PM
Subject: RE: Call [today](#) at 10? Does that work?

Jennifer --

On further reflection, I wonder if we should use a specification that controls for pre-treatment Vantage score. To my mind, this would serve two purposes: first, it would tease out the changes in consumer outcomes -- assuming that there might be one -- that is attributable to the consumer's being in "bad shape" to begin with. Second, this issue emerges in some literature in which there is speculation that worse-off consumers don't benefit from payday loans; we could test this, too. So having the pre-borrowing Vantage score on the right and the post-borrowing "delta" on the left seems to make some sense.

What do you think of this?

Hilary

-----Original Message-----

From: Jennifer Lewis Priestley

[<mailto:jpriestl@kennesaw.edu>]

Sent: Friday, December 06, 2013 8:21 AM

To: Hilary B. Miller

Subject: Call [today](#) at 10? Does that work?

Sent from my iPhone

Mathematically they would be highly correlated...since the delta is a function of the pre...but I will send you another round of analysis next week and include it.

Sent from my iPhone

> On Dec 6, 2013, at 4:06 PM, "Hilary B. Miller"
<hilary@milller.net> wrote:

>

> Jennifer --

>

> On further reflection, I wonder if we should use a specification that controls for pre-treatment Vantage score. To my mind, this would serve two purposes: first, it would tease out the changes in consumer outcomes -- assuming that there might be one -- that is attributable to the consumer's being in "bad shape" to begin with. Second, this issue emerges in some literature in which there is speculation that worse-off consumers don't benefit from payday loans; we could test this, too. So having the pre-borrowing Vantage score on the right and the post-borrowing "delta" on the left seems to make some sense.

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> Hilary

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> Sent: Friday, December 06, 2013 8:21 AM

> To: Hilary B. Miller

> Subject: Call [today](#) at 10? Does that work?

>

>

>

> Sent from my iPhone

Hi Hilary - take a look at the attached - this is just a quick check to ensure that I am on the right track. Score06 is the 2006 Vantagescore. Score07 is the 2007 Vantagescore and Change06to07 is the Change from 2006 to 2007. You will see a complete table of descriptive stats by state and then an ANOVA - the bottom of the ANOVA output will provide the direct comparison of each state relative to TX. Those comparisons with *** are significant - those without are not.

I will be available again [tomorrow](#) at 10 - let me know if that works for you. :)

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Attached is a very small sample of the data that we can pull up in Excel for discussion [tomorrow](#).

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From: "Hilary B. Miller" <hilary@milller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Wednesday, December 4, 2013 7:58:46 PM
Subject: RE: Checking In

Okay — I see.

This is a useful first step and considerably more detail about the components of credit scores than I was expecting.

So, this is really “Part 1,” which is scores as the LHS variable and regulation on the right. “Part 2” is scores on the left and actual rollover behavior on the right.

When we speak [tomorrow](#), I'd like to convince you that we need to explore changes in credit scores for individual borrowers before and after borrowing — not within-state changes in scores over time — as the dependent variable. If you have, in fact, done this, it's not clear, but I don't think you have. The purpose of this method of data collection was to set up before-and-after snapshots for individual borrowers. If you have, as I suspect, just tracked scores over time vs. regulatory scheme, then I see an issue with possibly confounding variables between states, including the fact that some were more deeply harmed by the recession. It's really important to get the concept right before we start the analysis, and for now I'd rather that we focus on the specifications rather than trying to write the paper. I don't want to waste your time but I think we have to agree on the foundation.

Please give this some thought and we'll speak at 10:00.

Thanks.

Hilary

-----Original Message-----

From: Jennifer Lewis Priestley [jpriestl@kennesaw.edu]

Received: Wednesday December 4, 2013, 05:32 PM

To: Hilary B. Miller [hilary@milller.net]

Subject: Re: Checking In

Hi Hilary -

I trust all is well. Attached is the discussion document for [tomorrow](#) - please view this as a work in progress to communicate the initial analytical findings. The primary emphasis will be on the results section and on the tables/figures.

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From: "Hilary B. Miller" <hilary@milller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Sunday, December 1, 2013 11:55:04 AM
Subject: RE: Checking In

That's a good time slot as things now stand. Please send me an Outlook appointment for your preferred time, and I'll lock it down. Thanks.

-----Original Message-----

From: Jennifer Lewis Priestley [jpriestl@kennesaw.edu]
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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Saturday, November 16, 2013 10:01:51 AM
Subject: Re: Checking In

Please give me a call as close to 5 on **Monday** as you can. I'll be at my desk.

On **Nov 16, 2013**, at 10:53 AM, "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu> wrote:

OK - I could speak after 5 on M,T,W...just let me know...

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Thats great feedback. I did start a pre-post analysis, but changed direction...so that is easy enough to fold back in.

And, you don't have to "convince me" - I am here to serve. I just want to make sure that what I am doing analytically is reflecting your thinking. Lets use this document as a basis for the conversation and determine what needs to be added/changed.

Talk to you at 10. :)

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Hilary - can we move our call to tomorrow? I am running a training session [today](#) until 5:30 for The Southern Company. I can call you [tomorrow](#) anytime after 4:30.

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Okay. Might be early next week.

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I meant to say...yes, please go ahead and send it...

Sent from my iPhone

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Also, when you have a moment, please see if you have the TransUnion "codebook." If not, I'll get it for you.

On Nov 16, 2013, at 11:02 AM, "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu> wrote:

Will do.

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department page:<http://math.kennesaw.edu/>
center page:<http://www.kennesaw.edu/csas/>
what would dagny do?

I meant to say...yes, please go ahead and send it...

Sent from my iPhone

On [Nov 16, 2013](#), at 10:05 AM, "Hilary B. Miller" <hilary@miller.net> wrote:

Also, when you have a moment, please see if you have the TransUnion "codebook." If not, I'll get it for you.

On [Nov 16, 2013](#), at 11:02 AM, "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu> wrote:

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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Saturday, [November 16, 2013](#) 10:01:51 AM
Subject: Re: Checking In

Please give me a call as close to 5 on [Monday](#) as you can. I'll be at my desk.

On [Nov 16, 2013](#), at 10:53 AM, "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu> wrote:

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what would dagny do?

The following meeting has been modified:

Subject: Call with JLP and HM

Organizer: "Jennifer Priestley" <jpriestl@kennesaw.edu>

Location: JLP to Call

Time: Monday, [November 18, 2013](#), 4:30:00 PM - 5:00:00 PM GMT -05:00 US/Canada
Eastern [MODIFIED]

Invitees: hilary@miller.net

~~*~*~*~*~*~*~*

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Ah, I had this saved as "previous Ph.D. paper" - i see now that its the same paper. :)

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----- Original Message -----

From: "Hilary B. Miller" <hilary@milller.net>
To: "Jennifer Lewis Priestley Ph. D." <jpriestl@kennesaw.edu>
Sent: Saturday, November 16, 2013 9:57:50 AM
Subject: Payday_Rollovers_82813.pdf

Thought I had previously sent this.

HM

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Got it! :)

Sent from my iPhone

On [Nov 10, 2013](#), at 10:49 PM, "Hilary B. Miller" <hilary@miller.net> wrote:

Yes. The original lender files contained all of the personal identifying information — these fields, as shown in the spreadsheet:

CUSTOMERNUM
LOANNUM
FIRSTNAME
LASTNAME
SSN

Those files were sent to TransUnion to be matched with credit bureau data. We do not have a “permissible use” under the Fair Credit Reporting Act for the matched data, so TransUnion deleted all of the personal identifying information and replaced it with a random, unique customer and loan identifier. These are the

INPUT_SEQNUM
Key\Flag

fields from the spreadsheet. That way, we can work with the data, but we can’t identify the borrowers.

Make sense?

H

-----Original Message-----

From: Jennifer Lewis Priestley [jpriestl@kennesaw.edu]

Received: Sunday [November 10, 2013](#), 10:44 PM

To: Hilary B. Miller [hilary@miller.net]

Subject: Re: Data call

Never mind - I figured it out - there is a field called "KEYFLAG" that appears to be a proxy for customer ID. OK - I feel better. :)

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From: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
To: "Hilary B. Miller" <hilary@milller.net>
Sent: Sunday, November 10, 2013 10:40:24 PM
Subject: Re: Data call

OK - then I have one more Q - I went into the original STATA files and the loan number and customer number values are set to missing in STATA (consistent with what I see in SAS). Does that sound right?

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From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Sunday, November 10, 2013 10:36:54 PM
Subject: RE: Data call

No bother at all. That's what I'm in business to do.

-----Original Message-----

From: Jennifer Lewis Priestley [jpriestl@kennesaw.edu]
Received: Sunday November 10, 2013, 10:36 PM
To: Hilary B. Miller [hilary@miller.net]
Subject: Re: Data call

OK. Thanks. I will stop bothering you tonight.

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To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Sunday, November 10, 2013 10:33:06 PM
Subject: RE: Data call

That sounds right. That's how we selected the subjects — a number from each of those states from each lender. Essentially, Texas is the “control” state (unregulated with respect to rollovers), and each of the other states has some different treatment.

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Received: Sunday November 10, 2013, 10:30 PM
To: Hilary B. Miller [hilary@miller.net]
Subject: Re: Data call

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That's my understanding.

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Sent: Sunday, November 10, 2013 10:20:14 PM
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That doesn't sound right. All of the raw data files should be in the same format. You have the Excel spreadsheet with the file layout. Each record should have an

anonymized (but consistent) TransUnion-assigned customer number and related transaction number so that a customer with multiple loans can be tracked. Is that what the merged file looks like, too? In view of Danielle's paper, this really makes no sense. I think the "rollover" file is output, not raw data.

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Received: Sunday November 10, 2013, 10:14 PM

To: Hilary B. Miller [hilary@millr.net]

Subject: Data call

Hi Hilary - we have "cracked open" the data. I have a few questions about it that I was hoping to clarify with you. Can we speak on **Tuesday** morning? The main questions are - the files for Jan2006 and Jan2008 are similar (in terms of variables), but the customer number and loan number fields are not populated.

The files for Jan2007 and Jan2009 are similar (but different from the first two) and do not appear to have a field for customer/loan number.

As a result, these files cannot be merged - or used for longitudinal analysis.

The Payday_rollover file is similar to 2007 and 2009 files, but again, no customer/loan identifier is present...and only CA FL KS MO OK TX UT are present.

Is all of this consistent with your understanding?

Ideally - to evaluate the effect of payday regulations on economic welfare (credit score), I would like to see data for all states - and then i could create a field to flag those states with and without payday regulations. In addition, some kind of identifier per customer and/or per loan is needed (if possible).

I have read all of the papers, and have created an analytical plan
- but I really need all states and loan/customer identifiers to do
what needs to be done. If they are just not available, we can
work with that - but it would be better (the results would have
stronger validity) if they could be included.

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OK - then I have one more Q - I went into the original STATA files and the loan number and customer number values are set to missing in STATA (consistent with what I see in SAS). Does that sound right?

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To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Sunday, November 10, 2013 10:36:54 PM
Subject: RE: Data call

No bother at all. That's what I'm in business to do.

-----Original Message-----

From: Jennifer Lewis Priestley [jpriestl@kennesaw.edu]
Received: Sunday November 10, 2013, 10:36 PM
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Ok - this insight helps. Thanks. I will run the STATA programs again and see where the import error occurred. Would it be possible to have your guys drop it into the shared drive as SAS files? That would eliminate the interim step of file conversion.

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Subject: RE: Files

I don't have them on my hard drive but will go hunting.

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Thanks. We are working on getting the data converted right now from STATA to SAS. :)

Sent from my iPhone

On Nov 7, 2013, at 5:38 PM, "Hilary B. Miller" <hilary@milller.net> wrote:

Here is another, brand-new paper for you to take a look at. I just received it and am reading it this evening.

From: Gregory Elliehausen [<mailto:gregory.elliehausen@frb.gov>]
Sent: Thursday, November 07, 2013 1:41 PM
To: Hilary B. Miller
Subject: RE: The Paper

Thank you for your comments and suggestions.

I have attached another paper that may be of interest to you.

From: Hilary B. Miller [<mailto:hilary@milller.net>]
Sent: Thursday, November 07, 2013 09:14
To: Thomas Durkin
Cc: Gregory Elliehausen
Subject: RE: The Paper

Excellent work, gents.

HM

From: Thomas Durkin [<mailto:tdurkin33@yahoo.com>]
Sent: Thursday, November 07, 2013 8:25 AM
To: Hilary B. Miller
Cc: Gregory.Elliehausen@frb.gov
Subject: The Paper

Good morning,

I fussed with the paper and fixed a couple of typos (run ons with parentheses, extra article, etc.). I added one footnote and removed a duplicate reference but otherwise did not do anything with the paper. It looks like it is in pretty good shape. Thanks for your efforts with the editing, and for your patience.

Greg is going to look into SSRN, and we will circulate it to various colleagues. We also will look into publication outlets.

Best,

Tom

<2013-10-09 Effects of payday bans.docx>

Just let me know when to expect the full dataset. :)

Jennifer Lewis Priestley, MBA, Ph.D.
Associate Professor of Statistics
Director, Center for Statistics and Analytical Services
faculty page: <http://www.science.kennesaw.edu/~jpriestl/>
department page: <http://math.kennesaw.edu/>
center page: <http://www.kennesaw.edu/csas/>
what would dagny do?

From: "Hilary Miller" <echosign@echosign.com>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Wednesday, November 6, 2013 4:25:52 PM
Subject: NDA Re Consumer Credit Research Foundation - Revised (between Law offices of Hilary B. Miller and Jennifer Lewis Priestley) is Signed and Filed!

NDA Re Consumer Credit
Research Foundation -
Revised (between Law
offices of Hilary B. Miller
and Jennifer Lewis
Priestley) is Signed and
Filed!

From: Hilary Miller (Law offices of Hilary B. Miller)
To: Jennifer Lewis Priestley

Attached is a final copy of NDA Re Consumer Credit
Research Foundation - Revised.

Copies have been automatically sent to all parties to
the agreement.

You can view [a copy](#) in your EchoSign account.

Why use EchoSign:

- Exchange, Sign, and File Any Document. In Seconds!
- Set-up Reminders. Instantly Share Copies with Others.
- See All of Your Documents, Anytime, Anywhere.

To ensure that you continue receiving our emails, please add echosign@echosign.com to your address book or safe list.

Thanks. I will bring this to our legal dept attention and talk them back from the cliff.

Jennifer Lewis Priestley, MBA, Ph.D.
Associate Professor of Statistics
Director, Center for Statistics and Analytical Services
faculty page: <http://www.science.kennesaw.edu/~jpriestl/>
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what would dagny do?

From: "Hilary B. Miller" <hilary@millers.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Wednesday, November 6, 2013 12:25:49 PM
Subject: RE: NDA

Jennifer –

I think you are covered by this under the separate Section 3(c). Section 1 simply identifies what is “confidential.” Section 3 specifies the circumstances under which you may disclose. You are expressly permitted to comply with laws and subpoenas. Take a look at 3(c).

Hilary

From: Jennifer Lewis Priestley [<mailto:jpriestl@kennesaw.edu>]
Sent: Wednesday, November 06, 2013 12:20 PM
To: Hilary B. Miller
Subject: NDA

Hi Hilary -

I am writing in reference to the NDA - while I dont have any issues - I am a professor in a public university...which has one (I think small) implication for the NDA...

The last sentences of section 1 are a problem, because I am subject to the open records act. This has never been an issue - none of my work has ever been subpoenaed - but there is a non-zero probability, so I need it taken out. Let me know if this is an issue - otherwise, its fine.

Jennifer Lewis Priestley, MBA, Ph.D.

Associate Professor of Statistics

Director, Center for Statistics and Analytical Services

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what would dagny do?

Hilary - this additional perspective is helpful - thank you.

Regarding the consulting contract - should I identify you personally as the client (in CT)? Or the Association (in DC)?

Jennifer Lewis Priestley, MBA, Ph.D.
Associate Professor of Statistics
Director, Center for Statistics and Analytical Services
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what would dagny do?

From: "Hilary B. Miller" <hilary@miller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Tuesday, November 5, 2013 8:43:09 AM
Subject: RE: Payday File Layout

Jennifer —

I think this is pretty close as an overview. I don't think you need to modify your summary, but I want to give you some additional thoughts that should inform your design and methodology:

To understand the importance of this paper and what I visualize as its contribution to science, it's worth viewing Bhutta et al. (and nearly all of its predecessor science) as looking at mean effects; that is, Bhutta determines that users *as a whole* aren't any better or worse off as a result of using payday loans. This makes perfect sense, as he explains, because the loans are small and the borrowers were in pretty bad financial shape to begin with. But we know, or at least suspect, that there is a distribution of outcomes. Okay, we know it. For most borrowers, having a payday loan either makes little difference or is welfare-enhancing. But there is that pesky left tail. Policymakers are appropriately focused on the left tail. They want to know: what do those people look like, and how did they get there? So, we'd like to take a deeper dive into how heavy users

differ from others, both in terms of their welfare outcomes, as well as whether it is possible to identify loan applicants at the pre-loan stage who have a propensity to “stuck” in the product for a long time.

(Interestingly, this latter discrimination function is not a traditional role of credit scoring, but it is perceived by policymakers as a function of “underwriting.” We’ll talk more about that issue at the paper-writing stage.)

These are basically subsidiary questions that need to be addressed regarding issue #2, not entirely separate ones.

Please do go ahead and send me the contract. We’ll send you an NDA, which I will try to get out later [this morning](#). I have all the data here and can transmit it to you immediately upon NDA execution.

Hilary

-----Original Message-----

From: Jennifer Lewis Priestley [jpriestl@kennesaw.edu]

Received: Monday November 4, 2013, 08:38 PM

To: Hilary B. Miller [hilary@miller.net]

Subject: Re: Payday File Layout

Hi Hilary -

I took a look at the file layout from Transunion - its fairly “typical” consumer credit data - we have several of these from Equifax that we use in the classroom to teach credit scoring.

I have gone through my notes and our correspondence - I have summarized my understanding of the project in the attached work plan. Take a look and let me know what you think. If you agree, then I will get a consulting contract out to you [tomorrow](#). Let me know if you need for me (and Joe Dolan - my graduate student assistant who will be working with me on this project) to sign an NDA.

I look forward to working with you. :)

Jennifer Lewis Priestley, MBA, Ph.D.
Associate Professor of Statistics
Director, Center for Statistics and Analytical Services

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center page: <http://www.kennesaw.edu/csas/>

what would dagny do?

----- Original Message -----

From: "Hilary B. Miller" <hilary@millers.net>

To: "Jennifer Lewis Priestley, Ph.D. (jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>

Sent: Sunday, November 3, 2013 3:07:09 PM

Subject: Payday File Layout

Jennifer --

Here is the file layout you requested. The raw files are fixed-field files which were imported into Stata. Each discrete record represents a single loan transaction (there may be multiple records per individual). The customer data are anonymized (TransUnion replaces SSNs with unique individual identifiers).

Hilary

Hilary B. Miller

500 West Putnam Avenue - Suite 400

Greenwich, CT 06830-6096

(203) 399-1320 voice

(203) 517-6859 cell

(914) 206-3727 fax

hilary@millers.net

(sent from laptop)

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----- Original Message -----

From: "Hilary B. Miller" <hilary@milller.net>
To: "Jennifer Lewis Priestley, Ph.D.
(jpriestl@kennesaw.edu)" <jpriestl@kennesaw.edu>
Sent: Sunday, November 3, 2013 3:07:09 PM

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hilary@milller.net
(sent from laptop)

Great. Thanks. I will send a project plan [tomorrow](#).

Sent from my iPhone

> On [Nov 3, 2013](#), at 3:07 PM, "Hilary B. Miller"
<hilary@milller.net> wrote:
>
> Jennifer --
>
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> [\(914\) 206-3727](tel:9142063727) fax
> hilary@milller.net
> (sent from laptop)
>
>
> <Final Layout Accept.xls>

Hi Hilary -

I think I understand. Lets do plan to speak in more detail. [Friday](#) is good for me - I am not teaching that day. I am available from 10 - 1.

Jennifer Lewis Priestley, MBA, Ph.D.
Associate Professor of Statistics
Director, Center for Statistics and Analytical Services

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what would dagny do?

----- Original Message -----

From: "Hilary B. Miller" <hilary@milller.net>
To: "Jennifer Lewis Priestley" <jpriestl@kennesaw.edu>
Sent: Tuesday, [October 29, 2013](#) 4:52:37 PM
Subject: RE: New Project(s)

Jennifer --

As we discussed, we are interested in answering some of the "\$64 questions" about payday lending, namely whether: (a) variation in state rollover regulation affects borrower welfare outcomes, and (b) variation in rollover usage affects borrower welfare outcomes.

To answer these questions, I have a large file of administrative data (38,000 borrower histories) from three storefront lenders that has been matched with 300

variables from TransUnion.

These data have been in the hands of a junior investigator for several months, and I have pulled the plug on this project because it was not progressing satisfactorily and it was impossible to get even professionals (let alone policymakers) to make sense out of her choice of methodology.

I would like to start from scratch on the analysis and produce two papers (or possibly one consolidated paper) of academic quality, peer-reviewable, that would respond to these issues. In my model, you would be the PI and would publish the paper under your name. We are here to help but want the paper to be yours. I can give you the work product of the now-terminated investigator and you can use it as a starting point.

We are on a relatively short timetable and need to have a finished paper by the end of February, no fooling.

I have a budget that can support a decent stipend and defray any expenses.

If you want to look at some related work, you might look at Kaufman (2013), <http://www.federalreserve.gov/pubs/feds/2013/201362/201362pap.pdf>, and Bhutta et al. (2012), <http://ssrn.com/abstract=2160947>. We modeled the data collection for this project on Bhutta. Kaufman is hot off the presses.

Please give this some thought, and then let's speak later in the week about your interest and what you would need to make this worth your while. I should be in my office each day.

Regards,

Hilary

(contact info below)

-----Original Message-----

From: Jennifer Lewis Priestley
[<mailto:jpriestl@kennesaw.edu>]
Sent: Friday, October 25, 2013 11:46 AM
To: Hilary B. Miller
Subject: Re: New Project(s)

Hi Hilary - pleasure to speak with you.

My cell number is [404-229-3216](tel:404-229-3216)
My office number is [770-423-6107](tel:770-423-6107)

Look forward to hearing from you next week. :)

Jennifer Lewis Priestley, MBA, Ph.D.
Associate Professor of Statistics
Director, Center for Statistics and Analytical Services

faculty page: <http://www.science.kennesaw.edu/~jpriestl/>
department page: <http://math.kennesaw.edu/> center
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----- Original Message -----

From: "Hilary B. Miller" <info@creditresearch.org>
To: jpriestl@kennesaw.edu
Sent: Friday, October 25, 2013 11:38:26 AM
Subject: New Project(s)

Dear Prof. Priestley:

I understand that you have been working with Michael Flores on an online-lending project. If these kinds of projects interest you, we have more projects, access to large administrative datasets, and a budget. Would you please give me a call?

Hilary Miller

--

Hilary B. Miller
Chairman of the Board
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